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CCP'S DUST 514

The game that will save the console

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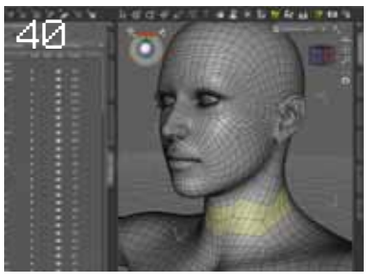

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ALPHA

ADVENTURES IN GAMES DEVELOPMENT: NEWS, VIEWS & MORE

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David and Goliath

The Frontier boss is planning big things with a tiny personal computer. But what does he hope to achieve?

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Editorial

KICKING UP DUST

THE FIRST-PERSON shooter has long been the scapegoat of those that criticise the homogenisation of triple-A game design.

So who would have thought that an FPS would step in as the saviour of mainstream console gaming?

But it looks like that's just what's happening. Icelandic studio CCP is poised to release *Dust 514*, a game that isn't afraid to stake a claim on being the most important console game the world has ever known.

Persistantly linked to the infamously intricate PC MMO *Eve Online*, CCP's new FPS serves in part as an attempt to align consoles today with where PCs were before the internet changed everything. That's right – CCP beleive their game can spark a revolution that will shatter and rebuild the console space entirely.

As our writer Rob Crossley says in his superb six-page focus on the game: while other console games simply strive to generate revenue, *Dust 514* doesn't want to do anything less than change the currency of the sector.

Yet the console landscape isn't the only one facing disruption this month. Over in Canada – that controversial mecca for games talent across the globe – there's a growing sense that the challenges are mounting.

Which is why *Develop's* new staff writer Craig Chapple has taken a balanced, frank and precise look at the continent's industry.

Another trend impossible to ignore as winter looms is the rush by games engines to support Flash in the wake of Adobe's 3D reworking of the 15-year-old platform.

Both Unity and Epic are ready to offer the ability to develop for Flash, and they both appear in this issue to explain why they're doing it.

And on this very page, there's the debut of a tiny PC with ambitions so big they rival CCP's.

Without doubt, it's an exciting time to don the *Develop* editor cap for the first time.

Will Freeman
will.freeman@intentmedia.co.uk

RASPBERRY PI is a computer the size of a USB stick that it is hoped will breed a generation of tech-literate creatives, and next month the developer units go on sale.

Remarkably small and inexpensive, the diminutive platform is the creation of a collective of experts from a range of backgrounds with one common interest; returning the teaching of computer science to its former glory.

There are many motivations for reinstating the school subject muscled out by ICT teaching in the UK in the late 1990s. A computer science literate generation will benefit tech and creative industries the world over, will be better trained for an increasingly computerised future, and might even make some video games that define the sector in ten or 20 years.

Perhaps the most well-kown member of the Raspberry Pi Foundation is David Braben, co-writer of *Elite* and founder of Frontier, the studio behind *Kinectimals* and *Lost Winds*.

OFFICE SPACE

Braben's belief that computer science as a subject is under-represented lead him to join a group called Computers in Schools. The body is a collective of teachers and professionals dismayed by the demise of education focused on programming and creative computer use.

"At Frontier we noticed in the mid-2000s that the number of graduates applying to us had dropped off," explains Braben. "Of course, I wondered if it was just us, so I contacted various people in universities who I know through my roles on various advisory boards at different educational bodies.

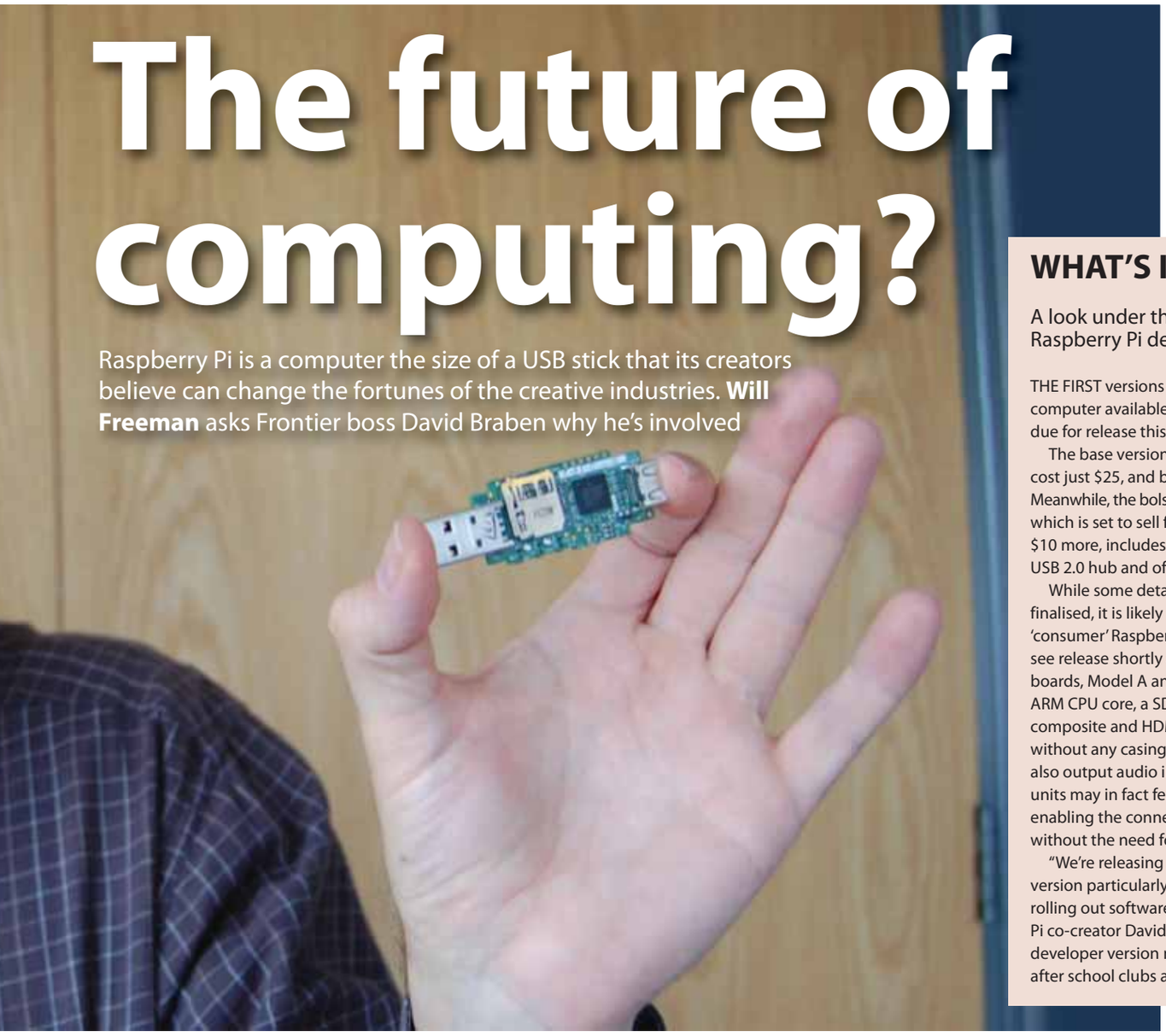
"They told me that privately it was even worse for them, because the number of computer science admissions had dropped hugely, some of them down by a factor of four. That's not little; that's a huge drop. I started to think it couldn't be a coincidence."

Concerned by how the trend would affect the games industry and its contemporaries, Braben found himself involved in the design and creation of Raspberry Pi, which will be available to buy for as little as $25.

The unit itself, set to initially be available in two different configurations, is a remarkable piece of kit. While the final size is yet to be confirmed, the device sits easily in the palm of the hand, can output both HDMI and SD signals, accepts USB, and, with the addition of a screen, mouse and keyboard, offers a full computer at an incredibly low price.

The future of computing?

Raspberry Pi is a computer the size of a USB stick that its creators believe can change the fortunes of the creative industries. **Will Freeman** asks Frontier boss David Braben why he's involved



Frontier's David Braben holds a tiny prototype build of the soon to be released Raspberry Pi, and below, the BBC Micro educational computer

WHAT'S INSIDE?

A look under the bonnet of the Raspberry Pi developer units

THE FIRST versions of the Raspberry Pi computer available will be the dev units, due for release this December.

The base version – the Model A – will cost just $25, and boasts 128mb of RAM. Meanwhile, the bolstered Model B edition, which is set to sell for between $5 and $10 more, includes an SMSC LAN9512 USB 2.0 hub and offers 256mb of RAM.

While some details are still to be finalised, it is likely that along with the 'consumer' Raspberry Pi units, which will see release shortly after the developer boards, Model A and B will feature an ARM CPU core, a SD-HC card slot, and composite and HDMI out. Designed without any casing, Raspberry Pi can also output audio in Dolby 5.1. The final units may in fact feature three USB ports, enabling the connection of more inputs without the need for an external hub.

"We're releasing the developer version particularly so we can start rolling out software," explains Raspberry Pi co-creator David Braben. "In fact, the developer version might start going into after school clubs and so on, with time."

"Today people are just taught to become consumers – something that will happen anyway," says Braben of the public's attitude to computers and software.

The vision of he and his Raspberry Pi colleagues, then, is to change that trend.

"People should be able to understand they can be creators," he insists. "If you can be a bit savvy about computers it means you can make bigger decisions on your own and get more out of things. Just things like writing a little piece of script to saving yourself having to do something 500 times is a skill and mind-set most people don't have any more."

TOUGH STUFF

"A group of us formed a registered charity and set out to make something as cheaply as possible that would be a tough, robust and open platform that would make it easy for teachers to share software, and allow people to be creative," says Braben of Raspberry Pi's early days. "We also wanted to provide a central venue, probably some sort of website – where people could upload stuff as long as they were prepared to put it into the public domain."

The need for a core community – and the public domain ethos – is central to why Raspberry Pi even exists. Previously the efforts to spread interest in computer science training by groups like Computing in Schools were hampered by the fact that the rare examples of educational programming software developed by teachers were hard to distribute. This was partly because of the fragility of modern PC in the classroom, and partly because of the expense and difficulty of installing compilers.

> ***"A group of us set out to make something as cheaply as possible that would be a tough, robust and open platform."***
>
> David Braben, Frontier

In fact, in the 1980s heyday of computer science in UK schools another platform was inspired by the same problems. The BBC Micro was robust in terms of both its physicality and digital innards. It offered a standardised platform throughout UK schools, and allowed teachers to deploy simultaneously to an entire classroom.

The iconic form of the BBC Micro will be fused into the memory of anyone who grew up in 1980s Britain, and now it has partly inspired the creation of Raspberry Pi.

"One of the things computers like the BBC Micro, the Spectrum and the C64 did, and hopefully the Raspberry Pi will do, is make people realise that a computer isn't a hugely complex intractable beast that you need a PHD to understand," states Braben. "It's actually no different from so many other devices that appear to be complex but really aren't."

LITTLEBIGINSPIRATION

Another inspiration came from the success of video games that popularised relatively intricate modding and user generated content creation. Of course, Braben gives a nod to *LittleBigPlanet*, but it was also Frontier's own *Rollercoaster Tycoon* and its 'Ride Exchange' that made the industry veteran realise a central depositary for the uploading, downloading and sharing of teaching aids could be the factor in priming a generation to be empowered by computer literacy.

"This could create a real snowball effect," offers Braben. "The teachers would feel more supported than they are at the moment, and it could make really very complex concepts

A Raspberry Pi prototype unit, which boasts a surprisingly rich feature set for its size

that would be very easy to teach that kids would be really up for."

The Raspberry Pi Foundation hopes to distribute units to every pupil in the UK across one school year – some 650,000 students. With that distribution model repeated each year, ultimately the computer could end up in the pockets of every child in secondary school education in the UK. And there's even been interest from both powerhouses like America and up and coming countries in Africa.

> ***"The Livingstone Hope report was a clarion call, and a very good attempt at putting into perspective what this issue is."***
>
> David Braben, Frontier

While Raspberry Pi was created to address problems in the UK, it really does have the potential to help spread the message of computer science across the globe.

The tiny computer – which is designed first and foremost as a creative platform rather than a place to run software – has also attracted interest from hobbyists, robotics experts, and wannabe game developers looking to gain the computer skills they failed to secure at school.

"I think that Raspberry Pi could also be a software platform running on a PC," adds Braben. "There's no harm in that. We're really just trying to provide a vehicle so that there's a way of getting enthusiasm back into kids."

LIVINGSTONE'S HOPE

While unrelated in an official capacity, Raspberry Pi also makes for a perfect compliment to the efforts of those striving to implement the findings of the recent UK Government-commissioned Livingstone Hope report. An effort spearheaded in part by Eidos life president Ian Livingstone, the report set out with very similar goals to Raspberry Pi; namely to reinstate computer science as a core literacy.

"The Livingstone Hope report was really a clarion call, and a very good attempt at putting into perspective what this issue is," says Braben. "In fact, I think this is about a wider issue than even the Livingstone-Hope report covers, because that focuses on the creative industries. The creative industries aren't the only ones that can benefit from computer science."

Whatever the differences between the two approaches, the games industry in the UK and globally is sure to gain if the Raspberry Pi Foundation or Livingstone-Hope initiative realise their goals.

www.raspberrypi.org

SHAKING UP QUAKE

How Raspberry Pi used a gaming classic to prove its might

Just a few weeks ago, a Raspberry Pi unit was shown running Id Software classic *Quake III Arena*. While the microcomputer was never conceived to be a gaming platform, the fact it can run the shooter at 1080 screen resolution with 4x anti-aliasing enabled and various lighting and geometrical details set to maximum specifications is hugely impressive.

"I can remember spending £250 or £300 pounds on a graphics card that couldn't render [*Quake 3*] this fast," says Ben Upton, a trustee with the Raspberry Pi Foundation.

"We think this bodes pretty well for the kind of level of gaming you should be able to do on the device, and certainly it's a lot faster than with any of the other chips we could have chosen to use."

While the demo showed the game running at just 20 frames-per-second, Upton confirmed his team has managed to get *Quake III* running on a Raspberry Pi at far smoother speeds.

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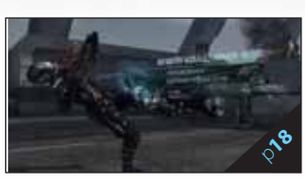

THIS MONTH: CCPs debut demo of Dust 514 **The Unity authored triple-A game Shadowgun** Unreal Engine 3's support for Flash detailed

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//COMMENT: BUSINESS

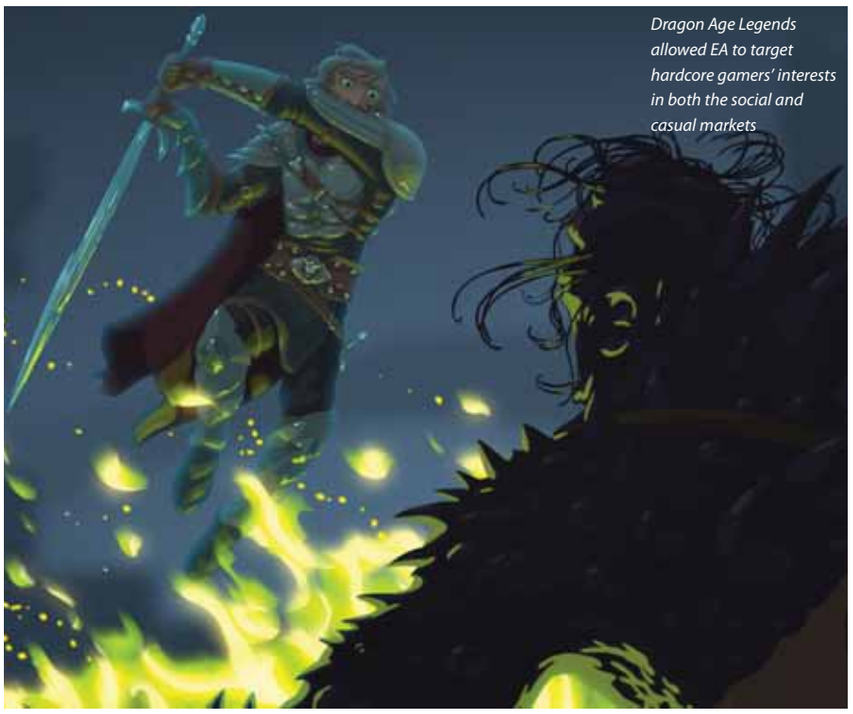
The promiscuous hardcore gamer

by **Rick Gibson**, Games Investor Consulting

AS THE WAYS that games are made, distributed and monetised transform some parts of the industry, change may finally have reached the bastion of the retail industry: the console gamer.

New data on gamers' playing and purchasing behaviour claims that many console gamers are spending time and money on social games. Is this data credible? And what does it mean for console games studios, their route to market and platform choices?

The data from Kabam and ISG's recent survey appears pretty stark. 82 per cent of US 'hardcore' social gamers surveyed said they are console/handheld gamers with Xbox 360 the most popular platform closely followed by Wii. Of these, 78 per cent said their spending on console was static or in decline and 88 per cent said their console gaming time would stay flat or diminish, as a direct result of social gaming. In contrast, nearly 60 per cent of the 'hardcore' sample said their spending on freemium social games would increase and nearly half expected to play more on social.



Dragon Age Legends allowed EA to target hardcore gamers' interests in both the social and casual markets

A PINCH OF SALT

Two other recent surveys reinforce the findings. The – largely hardcore – gamers' community Raptr measured top games' share of playing time for its ten million players and found that the fourth largest franchise, after *Call of Duty*, *World of Warcraft* and *Halo*, was Zynga's '*Ville*' titles, more than all the remaining core games franchises combined.

Another survey, by RockYou and Interpret, found that 50 per cent of 2,000 social gamers polled own consoles. While two-out-of-three of these companies have considerable vested interest in showing to investors how they are stealing market share from consoles, and some of the data needs a pinch of salt, one cannot avoid the emerging picture of changing consumer behaviour across multiple platforms.

Some of Kabam/ISG's survey's conclusions are a little too black and white. Despite August's sizeable 34 per cent fall in US software sales year on year, it's becoming apparent that Nintendo in particular and sales in certain genres like music have taken much of the hit.

Retail sales data for Xbox 360 and PS3, while not immune to falling sales and prices, appears considerably more buoyant. Whilst it would be a minor miracle if 2011 retail games sales hit 2010 levels, it seems highly unlikely that social is killing console, as some have interpreted, because it's clearly not a zero sum game. In this peak sales season, it's quite possible hardcore gamers' expenditure on both retail and social gaming could grow at the same time. Some publishers are even trying to target them twice with the same franchise, for example with *Dragon Age II* and *Dragon Age Legends*.

WII ARE HARDCORE

The hardcore social gamers profiled in Kabam/ISG's survey are 'mid-core' gamers on other platforms, or perhaps hardcore on Wii. Their demographics are not those of classic hardcore console gamers because they're too female and Wii is too prominent. But these surveys do provide detailed evidence of a new promiscuity in many of their behaviours.

> ***"Nintendo, with its plate already brimming with market fears, appears to have grounds to be worried by the promiscuity of its players."***

Platform-usage stats in the ISG/Kabam data reveal a mid-core console gamer playing heavily on PC (79 per cent), Wii (55 per cent), Xbox 360 (54 per cent), Smartphone (42 per cent), PS3 (39 per cent), handheld (36 per cent) and tablet (15 per cent) in the last 12 months. This demographic has started to use Facebook as a serious games platform, playing for many hours at a time and spending hundreds of dollars. Freemium content such as power-ups, extra resources and time-savers are popular and expenditure is on the rise.

Although some hardcore social games companies are spending millions per month on Facebook advertising, many are not, and overall players are clearly responding to new marketing techniques. Multiple hours on social networks every day exposes these mid-core players to marketing from social games companies sent to them by their own friends.

These messages intrinsically link the social value of their friends with the value of free items redeemed on response. It's the difference between a publisher's marketer telling you 'Go out and buy this game because it's great' and a friend saying 'Play this game with me now for free and get this cool stuff'. They might look like a wall of spam, but friends' recommendations within the context of specific games can be intrinsically valuable and highly effective marketing vehicles.

With social maligned, muzzled or at the very least misunderstood by the console platforms, none have mounted a clear defence against this changing customer behaviour.

Nintendo in particular, with its plate already brimming with market fears, appears to have grounds to be worried by the promiscuity of its players. Perhaps it's time for Nintendo to reconsider its 'anti-social' position and grasp the opportunity?

Rick Gibson is a director at Games Investor Consulting, providing research, strategy consulting and corporate finance services to the games, media and finance industries.
www.gamesinvestor.com

//COMMENT: DESIGN

After the Gold Rush

by **David Braben**, Frontier Developments

BY 'GOLD RUSH' I mean the delightful 'wild west' anarchy of digital download games, especially the App Stores for iOS and Android, and to a lesser extent Steam.

We have seen a great many individual developers and micro-teams creating content for these channels. Some of it is genuinely new, but much is sadly derivative and pretty poor. Some of the early innovators have made a great deal of money, and it was well deserved. Many others have followed on, seeing the attraction of the money but not the innovation needed to earn it – which is absolutely vital given how crowded this market now is.

Much as with the 1849 gold rush, most of the people that heard there is 'gold in them there hills' arrived too late. The gold was still being mined, but spread over a great many people, and many of those people earned barely enough to feed themselves.

> ***"Our industry is pretty fast moving, but success stories from earlier triumphs are still very visible, even though success now is much harder."***

Unfortunately, this is how nature works. There will always be a balance, with the imitative latecomers not scraping together enough to live upon.

NEVERMIND THE CROWD

The trouble is, there is a certain inevitability to this. While there are not conspicuous failures, other wide-eyed individuals will continue to flock to the flame; to the imagined nirvana. Our industry is pretty fast moving, but success stories from the early triumphs are still very visible, even though success now is much harder.

The excellent Markus 'Notch' Persson even called this out at this year's Develop Awards ceremony. There is a parallel in the music industry where unsuccessful bands vastly outnumber the few successes but there too, the numerous failed bands are rarely reported. Some failure is inevitable; as in most walks of life, if success were certain then people would continue to flock to it until it was not.

Many of the new 'young-guns' are looking at games released in the last year, thinking: 'I could do that'. Well, perhaps they can, but 'that' is not what they need to do anymore.

Minecraft creator Markus Persson on stage at The Develop Industry Excellence Awards, where he highlighted the 'gold rush' for success

'That' is what they needed to do a year ago. Now, they need to compete against what those people they admired went on to do afterwards; the things they are making now and have not yet released. There are now many teams of significant size working on digital download games, and we are just starting to see the change now in resultant quality and content.

CLOSED FOR BUSINESS

There is another very important point to bear in mind, too – remember that the available platforms are mostly 'closed'. By this I mean there is a gatekeeper to what will (and will not) be released. Take Apple, for example. Up to now, just about everything has been allowed through, but that is through Apple's choice, not the developers' right.

The iOS sheriff is in town, but is currently choosing to turn a blind eye to much of what is going on – this can change, just as it changed on console platforms as they became established.

I believe it is the software content that makes the platforms. Excellent platforms have failed due to lack of software, and mediocre platforms have been kept alive by excellent software. The recent patent spat between Apple and Samsung – and others – over tablets, and specifically the Galaxy, shows how the gloves come off when it comes to platform rivalries.

As the current spate of new platforms continue to increase their share of the gaming audience – and increase the audience size – familiar tactics will continue to come into play. Special deals for 'platform exclusivity' will inevitably be a battleground in the future, as will relationships with the key players.

Stretching the original analogy beyond breaking point; those new guns need to make friends with the sheriff before the railways come to town.

David Braben is the founder of Frontier Developments. Best known as the co-creator of *Elite*, Braben has contributed to a number of other projects including *Frontier: Elite II*, *Thrillville*, *LostWinds* and Kinectimals. **www.frontier.co.uk**

//COMMENT: STUDIO MANAGEMENT

Oblique Strategies

by **Tim Heaton**, The Creative Assembly

IN THE SEVENTIES the brilliant Brian Eno, together with Peter Schmidt, created 100 cards containing cryptic remarks aimed at breaking a dilemma or deadlock, particularly in creative situations.

They comprised unusual, sometimes counter-intuitive ways of looking at a problem. They were called Oblique Strategies and I think you can still buy them from Eno's website.

With that spirit in mind, although perhaps a bit less concise and inscrutable, I'd like to propose some different ways of dealing with development issues. These ideas are not meant to be used every day, and they're not meant to be guiding principles, but maybe next time there's a problem it might be worth considering a few – before rejecting them and just sitting at your desk with your head in your hands looking miserable. That can work sometimes.

Oblique Strategies help solve creative deadlocks with cryptic remarks

Picture: John Athayde/boboroshi

THINGS ARE CHEAP

We all know it's the people on a team that define its success. When managers flippantly say 'it's our staff that count', they're possibly not just being patronising, but stating the obvious too. Most of the cost of a team is the team, not its equipment or environment. But managers occasionally seem to struggle to pay for the things that can give easy wins. Some problems are alleviated by 'throwing equipment at them' – massively specified continuous integration-build PCs, better equipped meeting rooms, third monitors, more RAM and so on. Things are cheap and easy, people are expensive and complicated. Try the easy stuff first.

ABDICATE YOUR RESPONSIBILITIES

Got a difficult problem? Don't try and solve it in a managerial way, just tell the protagonists to sort it out. They're better placed than you. This works best where a problem is localised, and not spread across the workflow in a team – if it is it may need some arbitration. But teams can become dependent cultures where people feel they need to go to someone else to sanction or action change, so try and challenge that every now and again. A simple 'You do what you need to' can be surprisingly liberating.

STOP WORKING

Got a really big issue? One that's contaminating the way work is done? Get the whole team to stop and concentrate on that one issue. Some people may not be part of the solution, but by making a grand gesture, and by focusing everyone, you raise the priority to maximum and will get to a solution in the fastest way. Everyone mucks in, testing, reviewing etcetera. Better five days of no progress on the game but a fixed workflow than 12 months of frustration.

On a recent (non-CA) game we were putting features in late, after Alpha, whilst also bug fixing. Rather than accelerate on the feature development we stopped and worked for a week on only fixing bugs.

That meant we then had hard data about the fix rate of the team, the real stability of the code and so on – and we could work out how long it would take to get to 'gold master' once we were feature complete. It allowed everyone to see the wood for the trees.

> ***"Got a difficult problem? Don't try and solve it in a managerial way, just tell the protagonists to sort it out. They're better placed than you."***

CONSTRUCTIVE CONTROVERSY

Got a disagreement between key staff, or parts of the team? As a manager, be prepared to whip up debate, and force issues to a conclusion. You've obviously got to manage the situation carefully and professionally, and you will need to be clear that the individuals are capable of this kind of discussion.

I'm not talking about anything aggressive, but simply about getting the issue out in the open, allowing people to say what they feel, and arbitrating a carefully directed discussion. You may need to take a contrarian approach to really get to the meat of the issue. It's more John Humphreys than Jonathan Ross, and it's often more important to keep the discussion flowing than it is necessary to damp it down. At the end of the debate you need to close it down, ideally with a final decision – you cannot let the issue float on after a discussion like this. I'm wary about mentioning this technique, but it's a really powerful tool in a manager's toolset.

These are just a few odd ideas for approaching problems, hopefully not to be used too often. Problem solving itself has a suite of some really useful formal contrivances including de Bono's Six Thinking Hats, voting matrices and Ishikawa's fishbone diagram. It's really worth trying some out – some will stick, some will fail. To some people's great disappointment you don't have to wear hats when using the Six Thinking Hats technique. But you can if you want to.

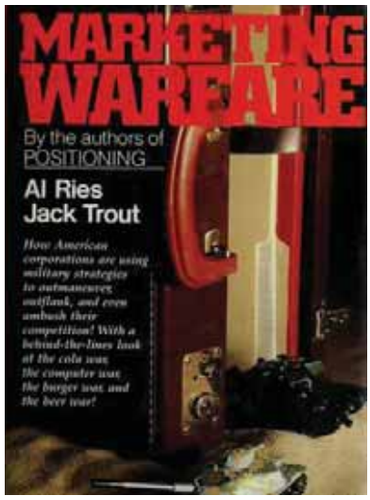
Brian Eno's ever-inquisitive mind, and ability to manipulate technology and techniques in his own creations, and when working with others, is inspirational. I hear he has recently been working with Coldplay though, proving that no one is perfect.

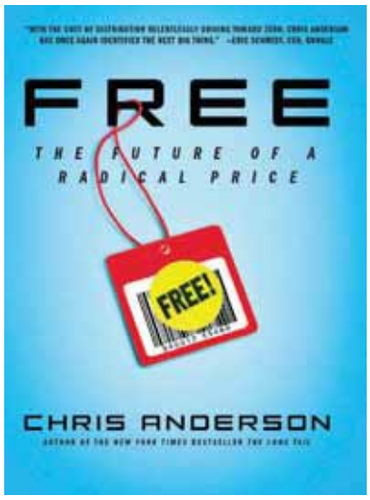
Tim Heaton is studio director at The Creative Assembly, the UK-founded studio behind the acclaimed *Total War* series of PC games, as well as numerous other works including original and licensed products. **www.creative-assembly.co.uk**

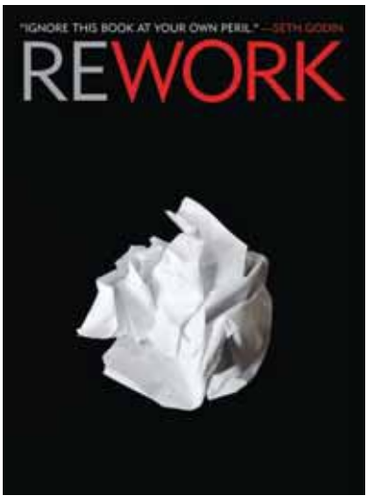
//COMMENT: MOBILE

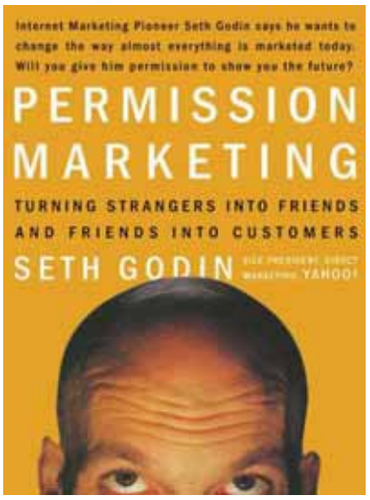
The good books

by **Will Luton**, Mobile Pie








Internet Marketing Pioneer Seth Godin says he wants to change the way almost everything is marketed today. Will you give him permission to show you the future?
PERMISSION MARKETING
TURNING STRANGERS INTO FRIENDS AND FRIENDS INTO CUSTOMERS
SETH GODIN

I DON'T NEED to tell you that our industry is at a major juncture. It's possibly the most historic, disruptive time in its 30-plus-year history. Traditional developers are failing and small development teams are rising.

The bedroom developer is back, and making games they love. The wave is growing, but for many early stage ventures it may, as it has for some, crash and roll back.

As we at Mobile Pie transition from a small start-up to a company with a solid, regular and diverse income, I'd like to share six big things we've learned from our experiences.

Also, I have suggested some books which have shaped what we do here.

ONE: DON'T BE PRECIOUS ABOUT YOUR PRICE

There's a lot of rhetoric out there about valuing yourselves and the work you produce and that gamers should respect that. Listening to that will put you at odds with your potential players and fans. Digital distribution means no physical costs and your small team means low overheads, so you have to be competitive on price.

The most competitive price is free. You need to understand free and the digital economy. I'd recommend reading Chris Anderson's *Free*. Ironically it's priced at £8.99.

TWO: GET A DESK CALCULATOR, INSTALL ANALYTICS AND MAKE A SPREADSHEET

Obviously you need a basic grasp of profit and loss, but you also need to grab as much data about your business and games as possible.

Quantitative data will lead to qualitative improvements, which leads to you making more money and thus more games and informing lots of what you do.

THREE: YOU AREN'T EA

And that's an advantage, so don't try to be EA. Be open and friendly, not corporate and stuffy. Build a following and excitement around your difference.

Even mediocre independent games have been profitable because their developers talk about what they're doing.

Seth Goldin's book *Permission Marketing* explains how to use social networks to, by consent, market your product. Also excellent is Al Ries and Jack Trout's *Marketing Warfare*, which suggests a marketing ethos for the small guy as a guerrilla.

FOUR: BE OPEN TO NEW THINGS

Yes, you want to make your own games, but if there's a profitable job making a corporate advergame that will bank roll your next title, take it. Alongside the money it will bring experience, contacts and unforeseen extras.

> ***"You want to make your own games, but if there's a profitable job making a corporate advergame that will bank roll your next title, take it."***

Perhaps a by-product of your game is a nice physics library: Sell it. Being open diversifies your income and makes you more stable.

ReWork outlines web productivity developer 37signal's mentality towards business. It outlines new thinking for running small, nimble tech companies, and it's extremely thought provoking.

FIVE: BE LEAN AND LOOK EVERYWHERE FOR MONEY

Keeping things simple, using slim process, hired and borrowed equipment and moving quickly will keep overheads low. Alongside work for hire and your own cash, there's lots of funding and support available for SMEs in the UK. Look at incubators and government bodies for support.

Also, networking will find you unusual partners, beyond investors and publishers, who are looking for developers and will fund cool projects. You don't need venture capital to setup or grow.

SIX: DO SOMETHING DIFFERENT

Mobile Pie uses location in many of its games and *My Star* was one of the first, if not the very first, game to use Facebook Places. This got us lots of attention with invites for feature articles and conference talks about the games mechanics, creating recognition.

Doing something new or different, even if it fails, generates interest. If it succeeds then you're ahead of the pack.

THE FUTURE

So there you have it: Six concepts which have shaped Mobile Pie and will hopefully help other developers.

Those that believe the return of the video game start-up will be short lived as consolidation continues may be wrong or right. Either way, it is rather excitingly bringing a return to creativity and innovation to the UK right now.

We have the talent and opportunity, so let's make it a reality. If you're setting up, please drop me a line and let me know. I'd be interested to hear about your adventure.

May a British industry once again bloom.

Will Luton is creative director at the award-winning boutique studio Mobile Pie. They create delicious own IP and work on licenses, with a partner list that includes the BBC, Orange and Hewlett-Packard. Follow Will on Twitter at @will_luton, or visit **www.mobilepie.com**

Recommended: Marketing Warfare, Free, ReWork and Permission Marketing

THE MONTH AHEAD

A look at what November has in store for the industry and beyond

NOVEMBER 1st
Uncharted 3: Drake's Deception. Nathan goes on a search for the fabled 'Atlantis of the Sands'.

NOVEMBER 8th
Call of Duty: Modern Warfare 3. The biggest blockbuster in gaming returns.

NOVEMBER 11th
The Elder Scrolls V: Skyrim. The highly anticipated entry into the franchise, featuring dragons, enough said.

NOVEMBER 16th
2 Digital Days. A chance for studios in Birmingham to showcase the city's 'vibrant digital sector'.

NOVEMBER 5th
Guy Fawkes. Because chucking pretend people on bonfires is socially acceptable?

NOVEMBER 10th
Pirates of the Caribbean festival. A family event celebrating thugs, murder and stealing.

NOVEMBER 13th
Remembrance Sunday. Remembering those who gave their lives for freedom.

NOVEMBER 18th
The Legend of Zelda: Skyward Sword. Link finally gets a made-for-Wii outing as he battles a new enemy.

NOVEMBER 5th
North East of North. Digital arts festival in Scotland themed around collaboration and legacy.

NOVEMBER 10th
London Games Conference 2011. Keynotes about the digital issues the industry faces… then dinner and drinking. We're noticing a pattern with these drinks.

NOVEMBER 15th
Assassin's Creed Revelations. Players can now create explosives in this franchise sequel.

NOVEMBER 24th
Develop in Liverpool. Networking, an indie track, and a post event drinks reception for yet another alcohol induced industry get together.

DEVELOP DIARY

Your complete games development event calendar for the months ahead

LONDON GAMES CONFERENCE
November 10th
One Wimpole Street, London
www.londongamesconference.com

The London Games Conference will return on November 10th at a new venue – and with a unique audience participation element.

LGC takes place at One Wimpole Street. The event kicks off at 4pm for four hours of incisive keynotes and talks about the digital issues the games industry faces, with perspectives from retailers, digital distributors and publishers. The conference is followed by dinner and networking.

300 execs are expected to attend the event, now in its third year.

NOVEMBER 2011

MONTREAL INTERNATIONAL GAME SUMMIT
November 1st to 2nd
The Hilton Bonaventure Hotel, Montreal
sijm.ca/2011/

NEON DIGITAL ARTS FESTIVAL
November 5th to 12th
Dundee, UK
www.northeastofnorth.com

G-STAR 2011
November 10th to 13th
Busan, Korea
www.gstar.or.kr

LONDON GAMES CONFERENCE 2011
November 10th
London, UK
www.londongamesfestival.co.uk

FUTURE GAMING AND DIGITAL CONFERENCE
November 16th
Birmingham, UK
futuregaming.bsp-a.com

2 DIGITAL DAYS
November 16th to 17th
Birmingham, UK
businessbirmingham.com/2-DIGITAL-DAYS

DEVELOP LIVERPOOL
November 24th
Liverpool, UK
liverpool.develop-conference.com

DECEMBER 2011

EVOLVE LONDON
December 1st
London, UK
www.evolveconference.com

GAME CONNECTION EUROPE 2011
December 6th to 8th
Paris, France
www.game-connection.com

MARCH 2012

GAME DEVELOPERS CONFERENCE
March 5th to 9th
San Francisco, USA
www.gdconf.com

JUNE 2012

E3 EXPO
June 5th to 7th
Convention Centre, Los Angeles
www.e3expo.com

JULY 2012

DEVELOP IN BRIGHTON
December 10th to 12th
The Hilton Brighton Metropole
www.develop-online.net

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BETA

DEVELOPMENT FEATURES, INTERVIEWS, ESSAYS & MORE

"It's a fantastic time to be a developer."

p32

CCP wages war on the closed console market with Dust 514

IN-DEPTH FEATURE, p18-23

Region focus: Is Canada still the world's best game development hub?

p25-32

The most important console game ever made

CCP could breathe new life into the tame and tired console business, says **Rob Crossley**

A SUCCESSFUL game is easy to spot: The publisher is richer, the retailer is busier, the people who play it are happier, and the studio that created it hasn't closed down.

Success for *Dust 514* would trigger something else entirely. This PS3 exclusive could pave the way for a dramatic transformation of the console business.

It could revolutionise PlayStation Network. It could bring a microtransaction craze to consoles. It could make Xbox Live appear insular and out of touch by comparison. And it could mark the first meaningful connection between the PC and consoles.

Look at it like this: For Sony, the most *Uncharted 3* can do is enlarge the bank balance. *Dust 514* could change the currency. But to understand why this is, you first need to accept this...

GAMES CONSOLES ARE NO LONGER AT THE FOREFRONT OF GAME TECHNOLOGY.

Systems like the Atari 2600 miraculously brought interactive entertainment into the living-room. Later, more advanced devices flooded the high street with 3D games no longer exclusive to high-end PCs. Consoles could read DVDs before the masses even knew what they were. The Dreamcast allowed friends to meet online years before Facebook was conceived.

What was supposed to happen was, in this age of unprecedented connection and interactivity, games consoles would again set the example. They haven't. In the sphere of interactive entertainment, it is the internet itself that is now leading the way; unrestrained in what it offers, and seemingly unlimited in its potential. The web is now the 'platform', the progenitor of hundreds of captivating and crazily innovative services that emerge each day on PC, on browsers, and on mobiles.

> ***"The console space is right now where the PC was before the internet kicked off. It's about to leap forward and it won't look back."***
>
> Thor Gunnarsson, CCP

Smartphones and the PC – two platforms that only a few years ago were deemed worthless to games studios – are now flooded with games business as a result of adapting to the internet age.

Social games firms have amassed hundreds of millions of dollars because of a revolution in how they can interact with their audiences; popularity in online games can be quantified and acted on.

Zynga, Valve, Tencent and others have triggered a tectonic shift in the industry, with new online-focused businesses erupting across the landscape. What has specifically driven them is the tight and rapid discussion between developers and their customers.

But the console manufacturers have blocked off any such potential. They have severed the direct lines between creators and consumers.

It's because they want to remain at the centre of the relationship. They want to be middle-men with control and influence over both sides of the equation, because it gives them collateral when brokering deals.

And the platform holders worry that constant updates to games will slow down the consumption of others. Console manufacturers believe in is a market that buys lots of different games, particularly their own first-party titles.

This is typified by Valve's *Team Fortress 2*, an FPS released in 2007. On PC, the game has been updated more than 200 times – all at no charge. One update added a microtransactions economy, another made the game entirely free.

On Xbox 360, it has had a handful of updates, which Valve has on occasion been forced to charge customers to download.

Valve president Gabe Newell put it best when he spoke to *Develop* in August: "The games industry needs to figure out how to make the internet better instead of figuring out how to keep customers off the internet".

Anxieties of online disruption have compelled platform holders to shelter their

systems from the progressive world that surrounds them. The result is destructive: an insular industry in an era of unprecedented openness, and an innovation wasteland.

To verbatim quote Nintendo America boss Reggie Fils-Aime in a way he wouldn't approve: "The graveyard of any industry is filled with the headstones of companies who decided to keep doing things the same old way".

But a promising solution lies on the horizon. The PC MMO *Eve Online* – an outstandingly popular game built on the ethos of constant connection – will soon be accessible from inside Sony's online network.

Its creator, CCP Games, will attempt this with a new, custom-made FPS exclusive to PS3.

These two games, hosted on their separate platforms, will persistently link both online audiences together. Information, game data and in-game commands will cross between systems. Actions in one world will determine outcomes in another.

For the first time, a games console will supply developers with direct access to customers, allowing for numerous and rapid changes based on user feedback and metrics. The Zynga model is coming to PS3, and it could make Sony a fortune. That's why *Dust 514* could change everything.

CROSSING THE BORDER

"The console space right now is where the PC was before the internet really kicked off," says Thor Gunnarsson, CCP's vice president of business development. ▶

Thor Gunnarsson, VP of business development at CCP, believes consoles will eventually match the PC's online sophistication

CCP's Shanghai studio (pictured above) is handling the core gameplay of Dust 514, working with the Iceland HQ, and tech and design studios in the UK and the USA

"Console is about to leap forwards and it won't look back," he tells *Develop*.

Eve Online launched in 2003 when online PC gaming services were somewhat primitive. From the MMO's humble beginnings, at a time when dial-up connections were still common, *Eve* expanded and evolved through various updates and edits. CCP's direct connection to its customers allowed the game to adapt to their tastes, and today the subscriber base has steadily grown to near 350,000. The average weekly playtime is said to be 17 hours; about 2.5 hours per day.

Eve is elementally a universe-sized battle arena. There are more than 7,000 star systems within the MMO for the player to explore with custom-built ships. Travelling across just ten of these star systems, without distraction, would take half an hour.

> ***"There have been cases where players have engaged in incredible skulduggery."***
>
> Thor Gunnarsson, CCP

Death in *Eve* can be unbearable. Hours of time and millions of ISK (in-game currency) can be spent on building a perfect ship. If destroyed, it becomes a floating metal carcass. The pilot escapes out of the game, while those who attacked it can ransack the remains for valuable parts and items. The player has to start from scratch.

But herbivores have a place in *Eve* too. An industrious player dedicated to mining ore on asteroid belts and manufacturing ammunition could make as much as 500 million ISK per month, which can be used to buy equipment, ship parts, weapons, and other such items. To give an idea of the currency exchange rate, a month's subscription of *Eve* will cost around $15, but can also be bought for 370 million ISK.

The inherent tension is that there are too many players and not enough space for everyone to live in harmony. The best places to mine for minerals are usually located in the roughest areas in the universe, while attacking a fleet of enemies could, if successful, offer a richer bounty far quicker.

And so, players organically form alliances to control areas of space, to plunder planets, raid enemy strongholds and establish their own networks. The result is self-organised groups who amass online and wage war around the world and across the universe.

The theory is fascinating; take away the script and the players write history themselves. Ask the community about the *Eve*'s rich history of battles, and many will recite war-time stories that have passed along the way. Others will tell you their own tale.

A SUICIDE MISSION

There is one story that sticks out.

It is called a Titan. A supermassive all-purpose mobile battle station. The strongest possible ship in *Eve*. It costs about 60bn ISK to produce (that equates to $1,000), and takes roughly a month to build. Of the 350,000 *Eve* players, only around 150 such ships are known to exist.

Yet despite their rarity, these battleship giants are subject to much controversy. Each Titan is fitted with a doomsday device – a nuclear bomb that will destroy any player engulfed within its vast blast radius. As a way of regulating the ship's overwhelming power, CCP ensured that each Titan's doomsday weapon shuts down for a whole hour after activated. But that, in turn, left the ship essentially defenceless for sixty minutes, so again it was revised and fitted with a warp generator that allows it to flee an area near-instantly.

But there was one Titan, owned by an alliance called 'Sev3rence' that managed to exploit the rules and take full advantage of its arsenal, and as a result left players incensed. The vessel would spring into star systems, kill everything on-site, and warp away to safety. As the predator left, a fleet of ships would collect the scraps and split the earnings. It was a game-breaker; a strategy that paid off time and time again with very little other players could do in defence. But something, clearly, had to be done.

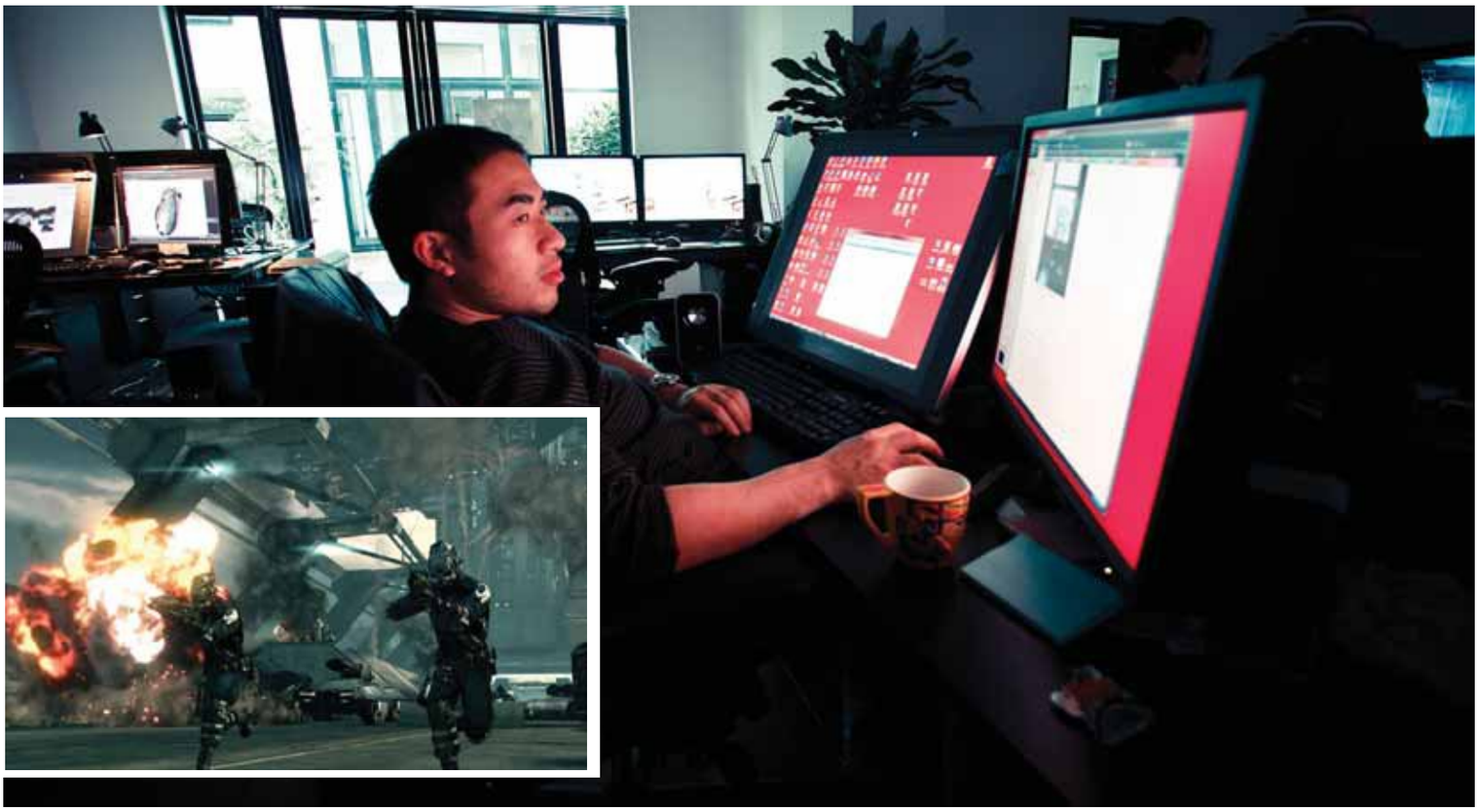
On July 21st, 2009, a rival alliance called Cry Havoc tracked down the Titan and its base of operations. Their plan appeared suicidal. A handful of heavy battleships entered Sev3rence-controlled air-space and advanced on the enemy; a clear declaration of war. In flew the Titan, which launched its doomsday device and cleared the area.

It was at this very moment that a small Cry Havoc vessel snuck into the battle arena. It was called a HIC, a 'Heavy Interdictor'; barely able to scratch the Titan's paint-job but equipped with a unique device.

This David-sized ship headed straight for Goliath and attached itself onto the Titan's hull. The HIC then activated its only weapon; a scrambler, a non-lethal device that negates the warp abilities of nearby vessels.

So the Titan, having already fired its doomsday, had effectively been put into an hour-long paralysis, unable to fire back and unable to warp.

And at that perfect moment, in flew Cry Havoc's full battalion, reportedly around sixty heavy ships, which had been waiting on the outskirts of the area the whole time. An unrelenting barrage of laser fire lit the sky.



And in the space of four minutes, the rare and near-unbeatable $1,000 ship became a scrapyard in the sky.

It was one extraordinary night in a living, growing anthology of many.

BACKSTABBING IS IMPORTANT

Now CCP wants PS3 owners to leave their own mark on the universe.

"There have been cases in *Eve* where players, not through any design of ours, have engaged in incredible metagaming and skulduggery," says Gunnarsson.

"We've seen players infiltrate enemy corporations as spies and take them out from the inside. Backstabbing is an important component in the world of *Eve*, and we are building *Dust 514* to work in the same way.

"Our goal is simple; the actions of a PS3 player can have huge ramifications for large corporations within the world of *Eve*.

"At CCP we've always believed that what happened in the PC space, when it was reborn around online gaming, would eventually happen with consoles. It is at that very point that we wanted to come in and lead the way."

KICKING UP DUST

Dust 514 battles take place not in *Eve*'s star systems, but on a select number of planets. PS3 players sign in to *Eve*'s own social network and can negotiate various missions and contracts with PC players.

For an agreed ISK bounty, a *Dust* mercenary could take control of a planet's anti-aircraft weapon and fire at co-ordinated targets into *Eve*'s outer space – all in real-time.

They could, on the other hand, be paid to take command of an entire planet so a contractor is free to plunder the area. Players will need to decide, and haggle, on objectives and rewards for themselves.

With Sony allowing CCP to bridge connections between console and PC, the developer's primary goal is to create a seamless connection where actions occur on both games simultaneously. Voice chat between the two is a necessity as factions rapidly form new strategies in swings of a battle.

"Both *Dust* and *Eve* share the same back-end. It's not two separate world servers, these are both the same," says Gunnarsson.

"A *Dust 514* client is just a different instance of the same clients running on *Eve* across PCs right now. That's an incredibly powerful notion. You have the same game space, the same gameworld co-ordinates.

> ***"We don't need to make the big pop at retail to make a big impact – and I think that's a reasonably new approach."***
>
> Thor Gunnarsson, CCP

"When you're fighting in *Dust*, that's a real planet in *Eve* – that's a real planet that people on PC are trying to fight for the control of. And PC users can support them or thwart them on the ground."

CCP has a volatile relationship with its PC customers, and is clearly cautious of how *Dust 514* could be seen as an *Eve* party crasher. It is one of the reasons why PC-bound players can, in fact, be instrumental in aiding battles taking place on PS3.

"The level of connection between both games will be dynamic," says Gunnarsson. "We won't pretend we'll know what will ▶

CCP UK'S ROLE IN DUST 514

CCP's development empire stretches from Stone Mountain in the US state of Georgia, across the Icelandic capital Reykjavík, to the world-leading Chinese city of Shanghai.

But the company also, and rather quietly, opened a UK development arm in Newcastle last year. Gunnarsson tells *Develop* that the studio has hired more than twenty engineers since, and much of the group's work will shape *Dust 514*'s future beyond PS3.

"Ultimately, CCP Newcastle will be working in full capacity on technology for the next generation of hardware," he says.

"Newcastle really is an engineering office for us, that's the kind of people we're looking for. They're working on internal tech, and with various middleware, and game engines too."

Dust 514 puts players in control of individuals on the battlefield rather than the mammoth spaceships that dominate sister title Eve Online (above)

happen as we begin connecting the two games and allowing information to flow between both. That will iterate over time. But the objective is to make *Dust 514* be significant to the world of *Eve* and vice-versa. So *Dust* players can call in air support or munitions from Eve players."

SUPPLY AND DEMAND

"Imagine fighting a ground campaign for days, perhaps even weeks, against an opposing force – clearly you'll need supply lines," says Gunnarsson. "That would require someone in *Eve* to do that for you. There's the old saying that an army marches on its stomach, right? Well we want to incorporate those supply lines in the gameplay.

> ***"Sony was in many ways more open to learn with us than Microsoft was."***
>
> Thor Gunnarsson, CCP

"This is all higher-level metagaming aspects of the gameplay, but we understand that for *Dust* to work as a console game it really needs the casual, pick-up-and-play elements to it too."

This is where the *Dust 514* utopia becomes clouded. CCP has never made for a casual pick-up-and-play game, or a console game, or an FPS. It is as green as an Xbox. The company's Shanghai studio has been working on *Dust* for three years so far, opting for Unreal Engine 3 instead of its own PC-centric tech.

Gunnarsson says CCP has hired "seasoned talent" from EA DICE to oversee the project; people who have worked on both *Battlefield 2* and *Mirror's Edge*.

But this is not about directly competing with *Modern Warfare* or *Gears of War*. Those two franchises need to be critically adored on day one to achieve the perfect launch. *Dust 514* is a different animal. It will use the PS3's opened connection to, like with *Farmville* or *Angry Birds*, adjust and adapt until its audience is hooked.

Gunnarsson explains: "*Dust* is developed in the same methodology as *Eve* – in that the launch is just the beginning. We are going to build iteratively in front of our community, with the same tight feedback loop as before.

"A real MMO service is one that's constantly changing, constantly evolving. I think that our experience running *Eve Online*, through thick and thin over the past eight years, will be hugely useful to PlayStation," he adds.

For Sony, there is far more on offer than the experience. *Dust* players need to complete contracts to earn ISK. If they fail too many times and run out of in-game currency, they'll need their credit card.

THE SONY DEAL

It cannot go unnoticed that, after CCP held talks with both Sony and Microsoft, it was ultimately decided that *Dust 514* would not launch on Xbox 360.

CCP has a strong relationship with Microsoft – in fact *Eve*'s back-end server tech is based on Windows – so Gunnarsson is politely talking around the issue.

"We're always keen to collaborate with both Microsoft and Sony," he says. "But when it came to *Dust 514*, Sony was in many ways more open to learn with us.

"When we showed the early code to Sony, it immediately gravitated towards this notion of bringing an MMO ecosystem onto the PS3. The partnership with them allows us to take better advantage of the PlayStation Network, which is arguably a more open platform."

While Xbox Live remains sheltered away from the open web, Microsoft has nonetheless succeeded in focusing on the platform's strengths. Live and the Xbox operating system are so well ingrained that the whole service is slick and seamless.

"That's a fair sentiment," says Gunnarsson. "But we hope *Dust 514* becomes a longstanding PS3 service, and we found Sony's attitude to this to be far more encouraging. Our perception is that they want to support MMOs on their platform, they are far more keen on this notion of games as a service. And they are equally spirited about this notion of an online service model mixed with a boxed product."

FORTUNE FAVOURS THE BRAVE

It has not been decided whether *Dust 514* will be packaged and sold at retail. The game is expected to cost around $20 and, as a bonus, will be bundled with that same amount in virtual currency.

Elementally, it is a free-to-play game that requires a deposit.

"We might do a retail SKU, but certainly not a full-price one," Gunnarsson says.

"We're still gauging the need for a retail box, but I'm sure if we do we'll add in a substantial amount of in-game currency."

He adds that, like with *Eve*, there is no mandatory requirement to pay real money for ISK. Provided they have the dedication and skill, players can work to earn weapons and items.

This soft sell to the customer hasn't hindered CCP's revenue intake. In fact, the hands-off approach has funded the company's own expansion to four studios across the globe and the employment of more than 600 staff – all while remaining an independent company. And the war chest has fully financed the *Dust 514* project.

But for all its promise, some will look at *Dust 514* and see another *All Points Bulletin*. That project, built by Realtime Worlds, was founded on the same principal as *Dust*'s; that a launch is just the beginning.

Poor reviews for *APB*, it was hoped, would be overshadowed as the game evolved to meet its customers' tastes. But MMOs need patience, and the VC groups backing Realtime Worlds showed little. The company buckled under its own debts and was liquidated.

This won't happen with *Dust*, Gunnarsson proclaims. CCP will remain patient if the game doesn't hit the ground running.

"Our metric of success will not be however many million of units sold in the first month. Our metric will be the lifetime value of our customers over an elapsed period of time, perhaps a year or two," he explains. "We don't need to make the big pop at retail to make a big impact – that's a reasonably new approach."

But CCP is nonetheless taking a risk. The project has cost them an Unreal Engine 3 licence and three years of dev time.

"It would be a risk to *not* make *Dust*," Gunnarsson responds. "It would be a risk to think that everything will work if we sit still."

His response couldn't be more appropriate. The entire console business is grinding to an unbearable halt.

DEFINING SUCCESS

A successful game is easy to spot; but too few are profitable.

Expenses are pummelling revenues to the extent that millions of sales are needed to recoup costs. Companies stay silent about their pressures, but from the thunderous collapse of talented studios the truth comes clear; the business model has become unsustainable. *Dust 514* could show there is another way.

> ***"It would be a risk to not make Dust. It would be a risk thinking everything would be okay if we sit still."***
>
> Thor Gunnarsson, CCP

"If you look at a developer's bottom-line for a classic retail box model; when you subtract the publisher's margin, the retailer's margin, the platform margin, and so on, you're left with maybe a quarter of the suggested retail price," Gunnarsson says.

"But in the MMO space, the path of success is based on vast multiples of microtransactions, or subscriptions or DLC. It's a long-term strategy. We think it's one that could be hugely beneficial to ourselves as well as Sony."

Triple-A became a self-fulfilling prophecy. The intoxicating belief is that success demands budget-obliterating production values. Success demands studios be more concerned about what they've left out of a game than what they've put in. The result is an organised circle of studios mimicking each other, spending a fortune to blend in rather than stand out.

Dust 514, as the videos will attest, is somewhat bland and vacant. There are no rich worlds of remarkable detail, but acres of basic and bandwidth-friendly war zones. What the critics will be tempted to say is that this is unacceptable in the modern age of triple-A games. If they do they are just as much part of the problem.

Because detailed textures, phenomenal mocap and a trip to Abbey Road shouldn't be what gives a project its 'triple-A' status. Entertainment remains the true and sometimes forgotten measure of a game's worth.

Dust 514 is part of a remarkable and unique online network, with no script and new stories told every day. It is a promising experiment in how console games can grow if developers are given direct access to their customers. It is an entirely new way to play on PS3 and – with Sony taking a cut of virtual currency purchases – could usher in a unique revenue model.

A successful game is easy to spot, but just as easy to misconceive.

Dust 514 could fail in ways that a triple-A game is not supposed to. It could be an ugly, unfinished mess. It could fail to make an impact in the charts. It could fail to turn a profit for a year.

If it does fail, and still becomes a huge success, the curse on consoles will be broken.

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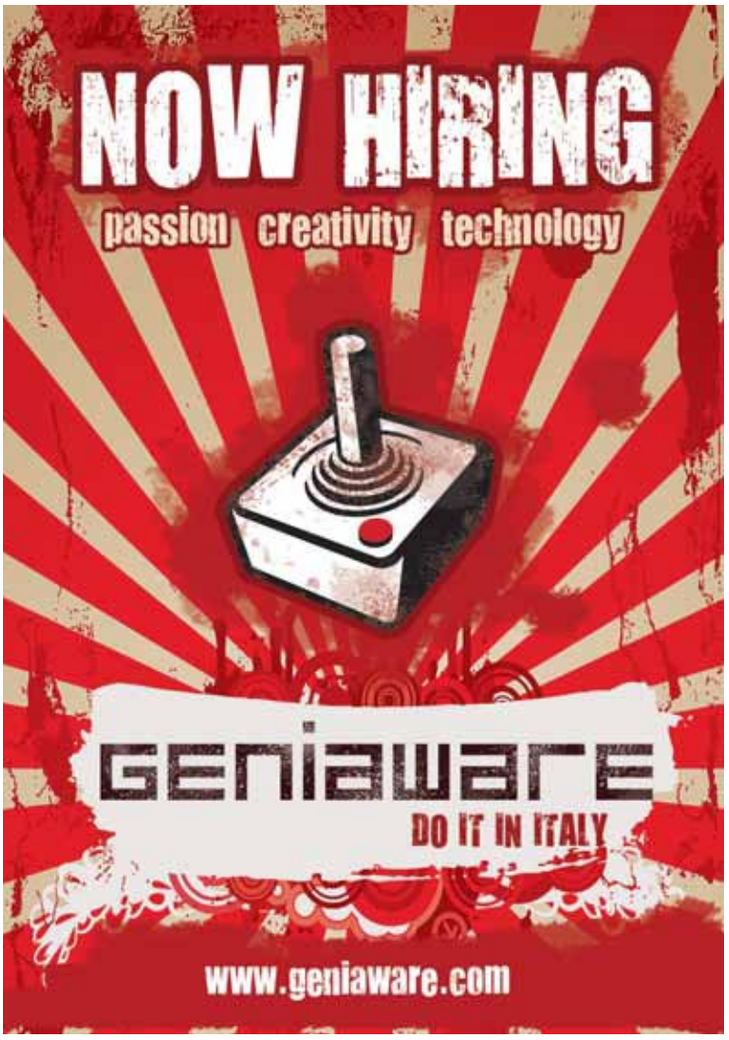

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The big chill or industry hotbed?

The Canadian game industry has been booming for many years, but is everything still rosy in North America? **Craig Chappl**e asks those at the forefront how the industry is changing

THE CANADIAN GAMES industry has seen dramatic growth over the last decade to become a global hub for development.

Whilst the North America scene continues to grow at an alarming rate, there are always new challenges facing the region. We asked those at the forefront what obstacles they are facing in an ever-changing landscape, particularly in these harsh economic times, and how Canada and its studios are helping to shape the industry's future.

HARD TIMES

Despite growing overall, many studios in Canada have faced difficult times. The large studios in particular have been hit, especially those with links to the US and the problems with fluctuating exchange rates.

Propaganda Games, owned by Disney Interactive, closed in January this year following project cancellations. In 2010 Activision reduced the size of its workforce at Radical whilst in 2009 Nexon closed its Vancouver operations, and in 2008 EA shut its nearby Black Box studio.

When questioned about the effects of the economy, some of the big triple-A studios have noticed a decline in the purchase of blockbusters. ▶

In association with: UBISOFT

Alastair Jarvis, HB Studios (top), Alexandra Beaulieu, Beenox (middle), Richard Leinfellner, Babel (above)

Ubisoft Toronto and Montreal CEO Yannis Mallat explains: "In recent years, we've seen that consumers purchase fewer blockbusters and are more inclined to purchase the most complete game experience that they can find. This has affected the entire global industry, and it would be false to pretend that Montreal has not felt its effect. Nonetheless, I am very proud of the studio's performance."

> ***"We have seen a decrease in volumes this year but these are not only driven by economics but also changing market trends."***
>
> Yan Cyr, Enzyme Labs

Ubisoft Vancouver managing director Bertrand Helias feels the same, adding: "Consumers purchase fewer blockbusters and invest more to ensure a more complete gaming experience."

Xona lead programmer Jason Doucette sums up the problems that are currently facing the global industry: "Games in their nature are luxury, and luxuries are usually the first to go when money is tight. So any economic change is going to be felt by any video game studio."

TIMES ARE CHANGING

The rise of cheap mobile gaming and the tightening of purse strings has meant that developers and publishers are now having to deal with a two sided attack on the industry.

QA provider Enzyme Labs' CEO Yan Cyr says: "We have seen a decrease in volumes this year but these are not only driven by economics but also changing trends in the market. We are seeing a shift towards free-to-play games, social games and mobile which has grown a lot in the last year."

However Helias says his Ubisoft studio, like others, is trying to adapt to these changing trends in customer behaviour by trying to offer more from their business and games.

"To better answer the market's demands, we reevaluated our structure and established stronger and more flexible teams by building on our existing expertise."

This re-evaluation means that the Vancouver studio now concentrates its efforts on developing assets for games made at other Ubisoft studios, such as Reflection's *Driver: San Franciso*, rather than on creating its own IP.

As well as a changing global market, Canadian studios have to deal with the economic problems from their southern neighbours in the US, who are struggling with a crippling debt and lack of market confidence causing a fluctuation of the US dollar exchange rate.

Frima CEO Steve Couture says that

STATES OF PLAY: BRITISH COLUMBIA

British Columbia has long been a Canadian development hotspot, but recently stepped up plans to attract studios by introducing the BC Interactive Digital Media tax credit.

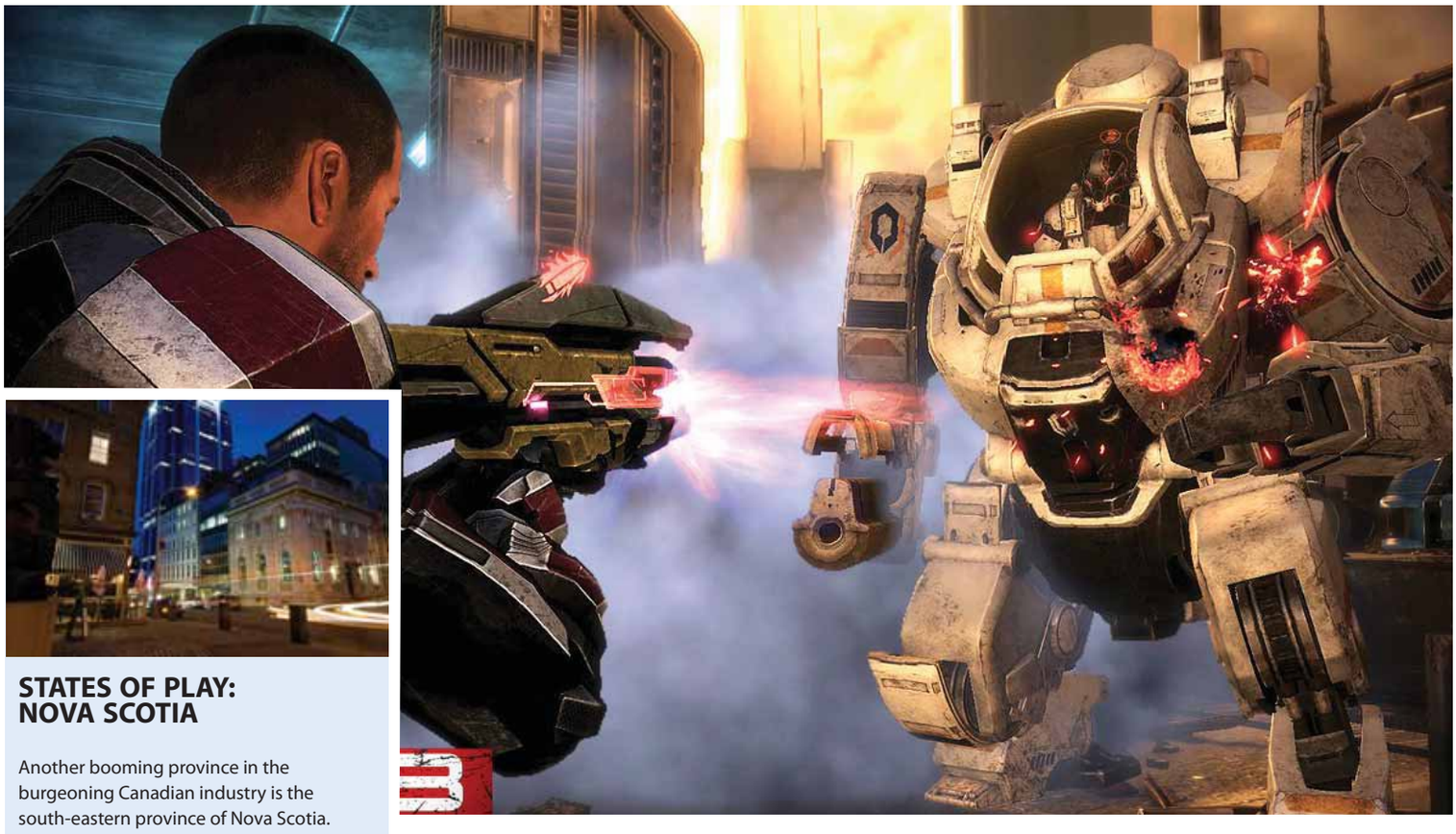
But Koolhaus president Wolfgang Hamann says it is not the tax incentives that encouraged him to start up the studio in Vancouver, but because of the area and its other benefits.

"The primary reason for setting up in Vancouver was the amount of talent here. Not the tax breaks as these only arrived in British Columbia last year and Koolhaus has been going for over six years. The tax breaks are also much lower than in other provinces."

The Centre for Digital Media, located near Downtown Vacouver, is one of the academic institutions to have set up here. Director of industry relations Denis Chenard says that, after the Government was lobbied by the local industry asking for a new program to create skilled producers and directors, the provincial government responded in 2006 with $40.5 million funding to get the program started.

In less than a year the campus opened its doors to the first class of its Masters of Digital Media program. Chenard says that as part of the MDM curriculum, students work closely with game companies such as EA, Ubisoft, Microsoft and Zynga in providing the local industry with well trained talent.

Construction is currently underway on a new centre to open in September 2012 to further expand Vancouver's talent base and help cement it as a key region in Canada's ever growing industry.



STATES OF PLAY: NOVA SCOTIA

Another booming province in the burgeoning Canadian industry is the south-eastern province of Nova Scotia. Whilst not yet as big as its Ontario and Quebec neighbours, the local developers are privy to strong provincial support and it has become a haven for new IP and independent developers, particularly in the digital space.

NSBI, which supports companies in the area to grow and succeed, believes the area is set to grow. Director Jayson Hilchie also says: "Many of our start-ups are doing innovative things that don't overlap at all with the larger studios. It is quite remarkable to see the range of games being made here."

One indie studio that has set up in the region is Xona, which in December last year released four-player shoot 'em up *Score Rush* to Xbox Live. Lead programmer Jason Doucette says that although new IP is important, creativity is very much a risk.

"When you've hit the jackpot, why would you change? From a business perspective, it makes little sense to not keep the momentum up with what you already have."

New studio Fourth Monkey, which currently has a headcount of 12 employees, says it is "dedicated to developing innovative, visually stunning, high quality games" on social and mobile platforms. President Kirsten Tomilson says the biggest challenge they face is "getting the funding to create a vertical slice", but the digital tax credit "helps to alleviate issues resulting from a downward economic spiral."

Of the increasing competition in Nova Scotia, she says: "I think it allows for more creativity in that the climate is extremely competitive in nature causing us to think outside of the box and create IPs that push the proverbial envelope."

despite expanding its workforce by an impressive 100 employees since last year, his studio has been affected by the economy. "Frima works mainly with US clients and the US dollar devaluation has had some impact".

Laurent Abecassis, president at Di-o-matic, adds: "As our neighbour is the US; the exchange rate fluctuation of the past few years has had a huge impact on outsourcing for US customers and as a result we have seen less contracts coming from there than before."

SnowedIn CTO Chris Thiffault also says many of their clients are from the US or deal directly with US companies, and economic issues have forced Canadian studios to reduce staff and cut projects. "Outsourced projects are often either cut or moved to an internal team which has its internal project recently cut."

His colleague Matt Tanner adds: "Because many major publishers are based in the US, there's been a slowdown of content being released, which in the end trickles down to studios like ours. On the other hand, Indies have really been able to flourish – since for them, its about releasing quality creative content."

HB Studios President Alastair Jarvis sums up the overall situation Canada faces: "Both the economic climate and technological disruption has affected studios in Canada.

"It's very reminiscent of how the music industry was a decade ago, but it seems as though the industry and government policymakers have been much better prepared to react to this shifts and have taken those lessons on-board."

STRENGTH IN TAX

Despite all the challenges facing the Canadian industry, Canada has continued on a 20 to 30 per cent trend of growth. Interactive Ontario president Ian Kelso puts it down to the tax incentives the various provinces are able to offer, which have offset the unusually strong Canadian dollar, whilst the cities have remained relatively inexpensive to live in.

Rocketowl's Emily Armstrong even believes, "contrary to what most would assume, studios have been tremendously affected in a positive way by the economic climate in Canada."

She explains that the tax incentives that are on offer "allow gaming studios the financial freedom to make employees enticing offers, including extremely competitive salaries and appealing incentives. Having the ability to work with the best talent in the industry has proven to be extremely beneficial to independent studios such as RocketOwl."

It is no secret one of the key factors in Canada's success is its generous tax policy. The federal corporate tax rate has been reduced to 16.5 per cent, and is set to go down to 15 per cent in 2012. As a result Canada will have a combined federal-provincial corporate income tax rate of ▶

Dennis Chenard, GNWC (top), Howard Donaldson, Digibc (middle), Emily Armstrong, Rocketowl (above)

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Beenox recently released Spiderman: Edge of Time, after last year's successful Spiderman: Shattered Dimensions

STATES OF PLAY: QUEBEC

Montreal is the most influential industry hub in Canada, along with its close neighbour Quebec City. The region has flourished to house some of the biggest developers, publishers and services in the world such as two Ubisoft studios, BioWare, THQ and Enzyme Testing Labs.

The region has become a huge global centre for industry education, with thousands of graduates coming out of local universities and institutions with a plethora of jobs available once they leave education.

Babel Media CEO Richard Leinfellner says that, as of this month, it is offering three courses in partnership with a program called "Intégration Jeunesse Emploi" (Youth Work Integration) for students wishing to join the industry.

"People realise that working with us is a great way to get into the games business and be noticed, many current games Execs started as testers."

The National Institute of Digital Entertainment, based in Quebec City, was formed by a group of developers and universities such as Beenox, Ubisoft and Frima Studio.

Beenox's HR director Alexandra Beaulieu says of the institute: "This school gives, among other things, an opportunity for some young graduates to live a unique video game development experience and to benefit from mentors presently working in the video game industry."

With such a big focus on education in the area, Quebec will clearly never be short on young talent and new ideas as the industry progress on to new frontiers.

26 per cent. Me'shel Gulliver Belanger, spokesperson for international trade Canada points out this is well below most other G-7 countries, and more than 13 per cent lower than their neighbours the US.

Each province manages its own tax programs adapted to its own needs, which in the games industry are notoriously generous. It all started in 1997 with Quebec offering tax credit to help French developer Ubisoft to set up. Since then the studio has released hit franchises such as *Assassins Creed* and *Prince of Persia*, whilst expanding into other cities such as Vancouver and Toronto.

This has encouraged other regions to implement similar initiatives after demand from developers and publishers who wanted to set up outside of Quebec but stay in Canada. With British Columbia setting up their digital media tax credit last year, Nova Scotia increasing their own tax breaks in 2008 and Ontario reacting in a similar fashion in 2009, the Canadian industry looks set to continue spreading throughout the country.

In British Columbia, the most used tax breaks according to Digibc President Howard Donaldson are R&D credit, digital media tax credit that can be used to claim back 17.5 per cent on eligible salary and wages incurred, and can be combined with R&D, and 30 per cent refunds on investments.

"These tax breaks have been instrumental in raising capital, hiring staff and funding development. All development studios use these tax breaks. This helps keep development costs manageable and competitive with many other jurisdictions," he says.

Many studios agree that tax breaks are a key part of their success. Ubisoft Vancouver's Bertrand Helias says: "The new BC Interactive Digital Media tax credit has the potential to benefit our industry on many levels. It offers us that extra financial flexibility to acquire talents and infrastructure that will enable us to grow and return to the levels of success we celebrated a few years ago."

He cautions however that it is too early to analyse its effects, but that there is every reason to be confident in its success of raising the prominence of the Vancouver game industry.

Tax breaks have also boosted how the Canadian industry works with educators.

> ***"All development studios use these tax breaks. This helps keep development costs manageable and competitive."***
>
> Howard Donaldson, Digibc

Many studios have formed partnerships with local universities and courses with the extra money they have at their disposal. They are providing tools, speakers and internships to students there, with more than enough jobs available for graduates to get into work.

The Great Northern Way Campus in Vancouver, set up in 2007 as a product of local academic institutions, has received significant funding from government and publishers. Director Dennis Chenard claims that even if tax breaks were taken away that the industry would remain strong. ▶

Steve Couture, Frima (top), Jason Doucette, Xona (middle), Jayson Hilchie, NSBI (above)

Top to bottom: Kirsten Tomilson, Fourth Monkey; Laurent Abecassis, Di-o-matic; Matt Tanner, SnowedIn; Yan Cyr, Enzyme

"Tax incentives are only part of the success story. Vancouver has always had a strong talent base, with a thriving film/VFX/animation sector, but quality of life and a city full of talented developers also helps the game industry thrive."

Longtail Studios GM Estelle Jacquemard says that the schools and provincial governments have helped in developing the industry in Canada which now offers a large talent pool creating huge ip's. She says: "Because of all these huge IPs, we can still attract foreigners to work in our country."

TAX PROBLEMS?

Despite the obvious benefits, there are some criticisms of the competition between the various provinces on offering such generous tax breaks.

Brian Provinciano, founder of Vancouver based Vblank Entertainment, believes that other provinces in the east offering better tax breaks in recent years has caused larger studios to expand there and scale down or even completely close BC operations.

"The problem with this is that it scatters talent. When talent is concentrated, more innovation and breakthroughs can happen. Many friends of mine have had to relocate to other parts of Canada in recent years, which is very unfortunate."

Jacquemard agrees that it is hard for BC studios to compete, saying: "Toronto, Montreal and Vancouver are the main competitors, in terms of recruitment. We are a small province, with very few games studios. It's not easy to attract people over here."

The tables seem to have turned on Canada after its tax breaks initially offered it a distinct attraction. If they were taken away or not enhanced, would the studios still stay just because of the large talent pool it has created and the money if offers for large publishers to set up there?

Koolhaus Games president Wolfgang Hamann admits: "We have and are investigating other provinces and also south of the border in the US where about 22 states provide tax incentives, most of which are greater than what British Columbia has to offer. We will probably never close our Vancouver operation, but we can't ignore what is happening elsewhere."

Some who criticise Canada also believe that, given the global nature of the industry, it is unfair that it offers such generous tax polices when other countries can't compete. But Canada's international trade spokesperson Belanger insists that Canada's programs for the industry are fully compliant with the country's World Trade Organisation commitments.

Despite no plans to take incentives away, many believe that even if they were, the infrastructure and abundance of talent now available means the Canadian games industry is here to stay.

It is clear that Canada and its provinces need to constantly compete to keep attracting the top studios and publishers, and most importantly, keep them. But this must not risk turning into a 'race to the bottom' for taxes, losing the balance between a successful industry and one that helps benefit Canada itself.

STATES OF PLAY: ONTARIO

Home to Toronto and the nation's capital Ottawa, the most populous cities in Canada, Ontario provides the perfect infrastructure and talent base for studios. The large metropolitan area is recognised as a thriving hub for independent game development and is an important part of the successful Canadian industry.

Interactive Ontario president Ian Kelso says the association has grown by 30 per cent annually and now has over 320 companies in its membership, with a third of these game studios.

Ubisoft Toronto, founded in 2009, has grown dramatically over the past two years to house over 190 employees and claims it is on track to grow to 800 creators over the next ten years as it actively recruits talent.

Managing director Jade Raymond says: "The untapped talent in the province is second to none and Ubisoft is excited to

support the growing game development industry in Ontario. The region combines world-class technical schools and training with strong film industry expertise, providing Ubisoft Toronto with access to a unique pool of talent."

But far from Ontario having intense competition with neighbours such as Montreal as it expands its industry, Kelso refers to it as 'co-opetition'.

"Each region wants the economic benefits of a thriving games industry, and the governments compete to create the best value propositions to attract the best companies," he says.

"Yet we are united as an industry through the Canadian Interactive Alliance, and we work together to promote Canadian companies on the world stage."

With such rapid expansion occurring in Ontario and its large untapped talent base, you can expect the region to be one of the world's biggest gaming hubs in years to come, but only if the province and its local studios can work together and match its vast potential with big ambition and results.

In association with: UBISOFT

The French Connection

Ubisoft speaks out on the growth of an industry it helped create and the current challenges it faces

Top to bottom: Nicolas Rioux, Quebec; Yannis Mallat, Toronto & Montreal; Jade Raymond, Toronto; Bertrand Helias, Vancouver

FRENCH PUBLISHER and developer Ubisoft was the original connoisseur of the Canadian games industry.

Helping to kick-start the sector back in 1997 in Quebec, when it was still known as part of the 'multimedia and software' market, Ubisoft has expanded its infrastructure and influence to three other cities in Canada since its arrival.

Employing around 2,700 employees in Montreal, Quebec City, Toronto and Vancouver, it is at the forefront of the country's development output and it has plans to continue growing and cementing its position as a key player.

Despite the credit crunch, debt crisis and changes in consumer purchase trends, Ubisoft Montreal, which houses more than 2,100 of the company's Canadian workforce, is setting out on a plan of continued growth.

"Ubisoft Montreal is focusing on the future," says Yannis Mallat. "Our industry is undergoing deep changes and Ubisoft Montreal is setting up for another 15 years of video game making. There is no doubt that the next few years will be immensely interesting."

The Toronto branch is also planning on expanding to 800 employees and ramping up its production on triple-A titles, which currently include *Splinter Cell* and an unannounced project. The problems facing triple-A titles are clearly not a concern for Ubisoft execs, who claim to be excited about the challenges they may face.

"Each new innovation in the video game industry opens up a world of possibilities for game developers and this is where we at Ubisoft Toronto see the most exciting opportunities," says MD Jade Raymond.

"It's a fantastic time to be a game developer and changing the way people are interacting with entertainment."

TALENT POOL

Ubisoft puts the continued growth of the Canadian industry down not just to its very generous tax breaks, but the large talent pool it has created.

> ***"Canada continues to lead growth globally with development excellence and innovation in exciting new areas."***
>
> Nicolas Rioux, Ubisoft Quebec

Vancouver MD Bertrand Helias says: "It is important to mention that while tax credit programs are a great help in the evolution of the industry, none of it would be feasible without the creativity, talent and passion of the local workforce."

The publishing giant supports many institutions, such as the University of Montreal and the national school of interactive entertainment. The Montreal branch also hosts an annual summer development camp for teenagers.

LACK OF EXPERIENCE

But despite an enviously large talent pool of young developers, Mallat believes veterans are what the industry in Canada lacks.

"For the industry to evolve and grow as it has in the past, all that new talent needs to benefit from the counsel of more experienced creators. Developers with five to ten years of experience are definitely harder to come by."

Ubisoft's Quebec City GM Nicolas Rioux agrees, saying: "Our main problem is related to senior or very specialised talents. It is somewhat difficult to find very experienced people here in Quebec, so sometimes we have to hire people from outside of the province and Canada, according to each project's needs."

The publishing giant is adamant Canada is still the place to be and will continue to grow with the help of tax breaks and its large young talent base, which will eventually grow into the veterans they and the rest of the industry crave.

Rioux adds: "As a powerhouse in game development, Canada continues to lead growth globally with development excellence and innovation in exciting new areas."

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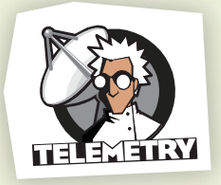

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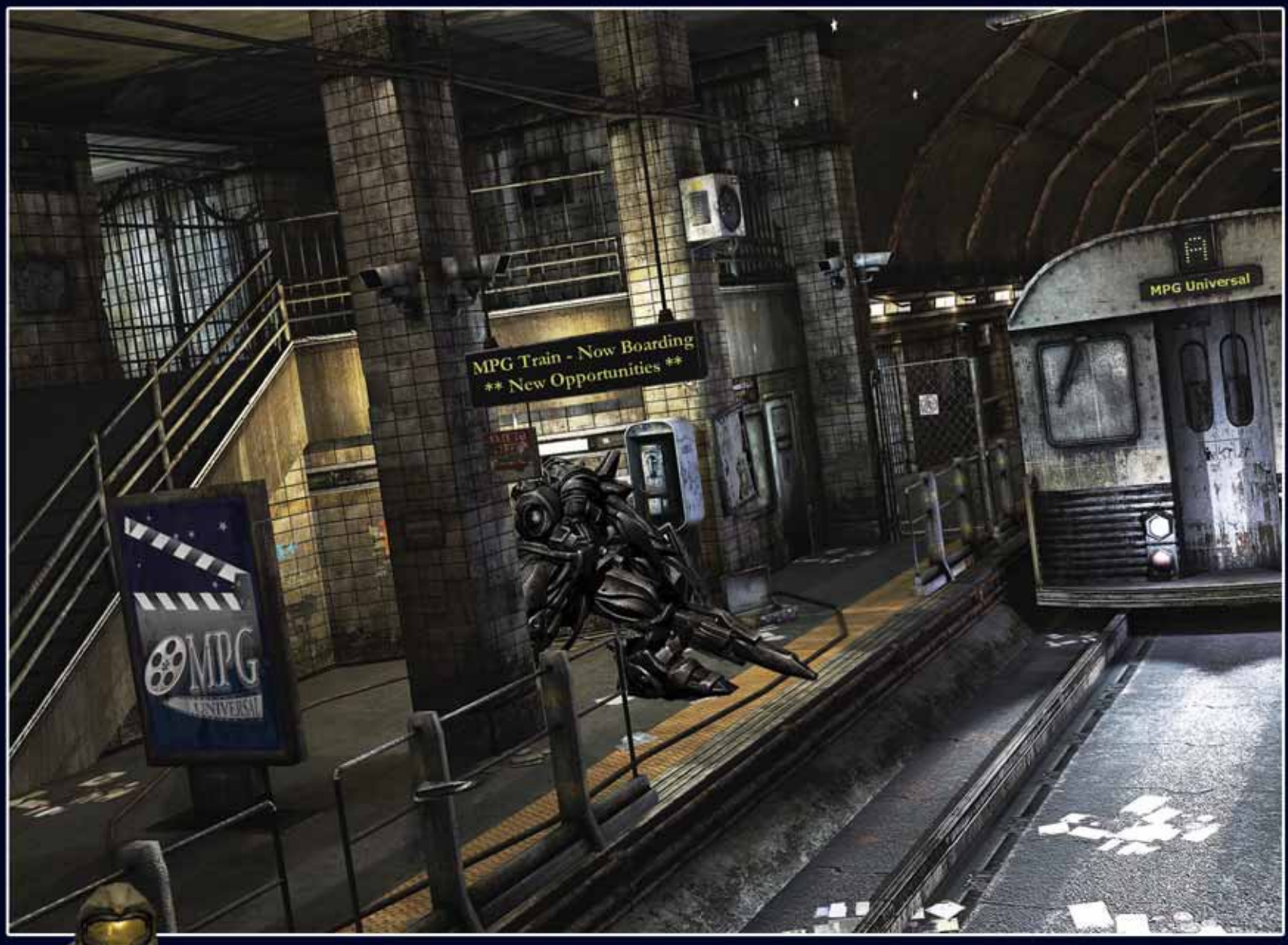

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BUILD

THE LATEST TOOLS NEWS, TECH UPDATES & TUTORIALS

"We've been working closely with Adobe."

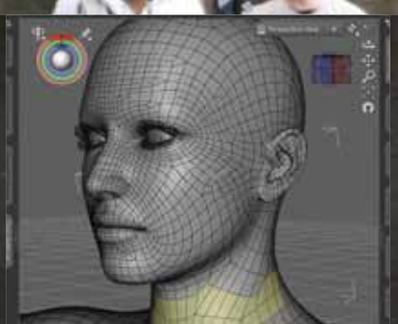
p41

United they stand

Unity's Unite 11 user conference shed light on its first acquisition, Flash support and more, p36

KEY RELEASE: Daz Studio 4 Pro and Advanced

p40



AUDIO: Batman: Arkham City

p43

Unity's big year

With expansion, its first acquisition, a move on Flash and a new focus on triple-A, Unity has had a busy year. **Will Freeman** catches up with two of the engine outfit's co-founders at the yearly Unite user conference

A big focus at Unite has been on what Unity developers can do with Flash. How important is export-to-flash for the engine's future?
Nicholas Francis (CCO): It really is just another platform for us.

David Helgason (CEO): Absolutely. It's simply a great way to put games on the web. Adobe announced the Flash 3D features around a year ago, and people knew it was coming. We were looking at it, and knew that if they got it right we might be able to work with it.

We weren't sure, by the way. It's kind of weird to run one thing inside another like that, and we thought it could really suck.

We were really doubting it, and it took a lot of discussions. The best thing that can happen in a technology company is that two of the best engineers there are just say 'this is important, so let's just do it'. So during December last year we gave it a try. These were two very freaking brilliant guys, and they worked on it for a couple of months, and we realised it was going to work. So we green lit the project, and by the spring we were sure enough that it would work to announce it.

And you really just see this as just like any part of the evolution of what Unity offers?
Helgason: Yes. Unity is fundamentally a tool that allows people to create awesome games and game-like things, and run them where they need them to run. I think we can now say very certainly it is important to be able to run your 3D games inside Flash, and thus our customers need to be able to. Now that is very, very close. It really does work.

You also used your Unite keynote to affirm your commitment to increasing Unity's ability and status as a triple-A engine. You said something similar at Unite 2010, so what's changed?
Helgason: Well, last time that was just entirely a claim, right? [*much laughter*] This time it's real.

But isn't it going to be hard to satisfy both the hobbyists and small teams Unity is famous for courting, along with studios making triple-A games?
Helgason: Well, I must say that yes, historically those are opposites.

Francis: But we've always done things so Unity is open enough for triple-A developers to knock themselves out. And yes, we've had some areas where work needs doing and there are holes and bugs that have only manifested themselves in large-scale projects, and we've always had to work to iron those out.

If you're a small guy making a game, you'll focus. A triple-A game will push all of Unity's buttons, because they use big teams and have big budgets. That smaller guy will focus on just some of the buttons, but it doesn't mean he won't go just as deep in how he uses them.

Perhaps the little guy will be doing some work with particles that is every bit as complex as it would be on a triple-A game, but leaving complex audio stuff out.

Tripe-A stuff sounds so expensive and inaccessible, but I actually don't think that's how it should be.

Everyone, whether in triple-A or not, wants Unity to be as awesome as possible. And really it's often the indies and the hobbyists who are more blocked by a lack of features than the triple-A guys. The guys at places like EA can roll out features themselves much more easily.

> ***"I think we can now say very certainly it is important to be able to run your 3D games inside Flash, and thus our customers need to be able to."***
>
> David Helgason, Unity

So in that way we can service everyone. But then there has been an internal shift at Unity. In a way, we've moved from a focus on making it simple to make games, to saying that we want Unity to help your game be really, really awesome, whoever you are.

So in a way you're taking Unity's mantra of 'democratising game development' very literally, and catering for everyone, small or large?
Helgason: Well, remember that we never called ourselves anything like 'Garage Games', or said we were a hobbyist's engine. We only said we wanted to make it simple and easy for everyone. Speaking frankly, at the start it was only hobbyists. None of the big studios dared use Unity.

Now that we offer broader features, and now that we have proven ourselves and earned people's trust, today we're seeing the whole range.

And it turns out that things that save those smaller teams time also save the big teams a lot of time.

And you're also expanding globally, with new offices in Japan and now Canada?
Francis: They are very different things really. Our focus in the Asian market is about getting Unity out there. Looking at our statistics we were seeing a tremendous pick-up in Asia. But because there is less speaking of English, we didn't really know what was happening. We could see there was a bunch of people there downloading it, so we knew we had to start to do what ever it takes to get things there building up. That really is an on-going effort.

On the other side, Unity Canada, to be honest, could be anywhere in the world. It was about where Mécanim, who we acquired, were based. It could have ended up being called Unity Tibet if that's where they were set up.

Helgason: I'd be totally behind setting up in Tibet. But seriously, we set up where there is talent. We've also recently set up an office in Stockholm for the same reason. We didn't make an acquisition there, but we did find some incredibly talented guys there who were from DICE, the Electronic Arts studio, and they wanted to join us, so we made them an office.

Mécanim was your first acquisition. Is that something we're going to see more of?
Helgason: We are open minded to it, but really it's not so important that it's an acquisition. Mécanim were guys that we wanted to work with, and they had technology that we thought was a good starting point for something. It really was incredible, but these guys had only been working on it for a couple of years, and they weren't even considering it finished.

But still, we knew they understand character animation in a way that we don't. They're basically world champions at it. Nobody is better than them. The fit was perfect, and they fit in with the Unity company culture, so we acquired them.

Francis: But it wasn't about the acquisition, it was about the talent and technology and the fact that we wanted to work with those guys.

At last year's Unite you announced Union and the Asset Store. How are those going?
Helgason: The simpler one there is Union. We had this understanding that we could take games and put them on new platforms, and that's actually happened; most recently with the Roku 2 set-top box and the Nokia N9. Union has progressed as expected.

It's maybe worked slightly slower than we expected, because the bigger companies can be so slow.

David Helgason (far left), and Nicholas Francis (left), at the Unite conference, where the pair addressed the Unity engine's future in Flash and their renewed focus on Triple-A.

Francis: I never knew how many meetings they would need. That was surprising.

Helgason: And we have a lot more Union deals we're nearly ready to announce. But it is a slow process.

And what about the Asset Store?

Helgason: That's something that's got a bit more marketing focus, and it's really important to us and we've given it a lot of effort. It's really going wonderfully actually. When we first talked about the Asset Store we thought that, worst case, it just becomes a nice feature, even if it doesn't make people money. And it turns out that it does make people money. It's making some people a lot of money. And it's not just the one exception that's making money. It's quite a lot of people. And it's expanding the abilities of the engine. Things like the spline editor have offered a perfect solution for lots of games.

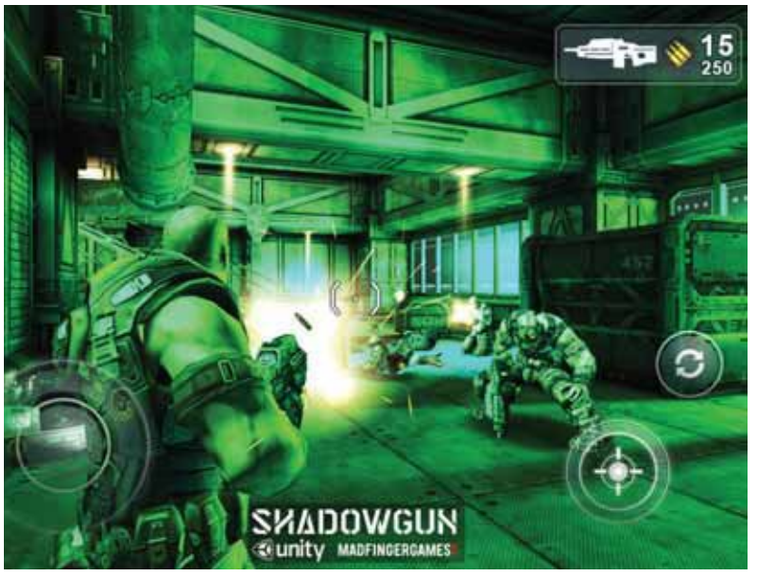
Francis: And there's 1,866 assets and packs on there. It's definitely going well.

www.unity3d.com

Turn over to see analysis of Unity's new Flash capabilities, and flick to page 42 for more about the engine maker's move on the Asian market.

A Flash of inspiration

Unity used its recent user conference to showcase its engine's new ability to export to Flash. **Will Freeman** talks to some of the team that made it happen about what support for the Adobe platform means for Unity users



High-end Unity game Shadowgun (top of page), which can be played in Flash, and the Unity staff that helped make it possible; Ralph Hauwert (top) and Lucas Meijer (above).

WHEN ADOBE revealed the forthcoming 3D capabilities of Flash, Unity knew it presented the engine company with an opportunity to extend its famed concept of democratising game development.

Enabling its users to publish their creations on Flash Player would mean Unity could increase the reach and scope of the games to which it serves as engine, and in doing so enable more of its customers to make a living making games.

Within a very short time of Adobe announcing that the Stage 3D rendering ability would expand Flash Player 11's power as a gaming platform, a band of Unity's most experienced engineers began work to see if they could support export to Flash player for Unity-authored projects.

The team demoed Unity's new ability to export to Flash at the recent Unite 11 conference, which brings together the company and its fervent customer base to talk over new features and refinements.

"We're trying to benefit everybody as much as possible," explains Unity's Flash expert Ralph Hauwert, previously famed for his work on PaperVision3D.

"The first thought we were having with Flash export, at least once I was on the team, was that people using Unity should be able to target as many platforms as possible without having to do too much modification or work on multiple projects. In that way it really is just adding another build target to Unity."

OUT FROM THE SHADOWS

Seeing a Unity authored game like *Shadowgun* – the current benchmark of what is possible with the engine – running in Flash is certainly impressive, but an obvious question remains. Why move to support the Flash Player when it is effectively a rival to Unity's own web-player?

For Unity, the answer is a simple one; Flash Player will allow Unity users to reach a great deal more opportunities.

"By publishing to Flash you can now reach even more people," offers Unity engineer Lucas Meijer. "Parallel to that – whether it's Flash, Unity Web Player or a mobile device that you're targeting – there's always the question 'How do I make my game run fast?'. In that context, as I spoke about on stage at Unite, the best way to have your game run faster is to not do stuff. If that isn't an option then just do less stuff."

> ***"Unity publishing to Flash player will have very similar performance characteristics to the other platforms."***
>
> Lucas Meijer, Unity

Certainly, Flash is less powerful than both the Unity Web Player and many of the other platforms the engine supports, but fortunately for Unity users working to export to multiple platforms, there is very little they will have to strip from their games when optimising for Flash.

"Unity publishing to Flash player will have very similar performance characteristics to some of the other platforms," says Meijer, who admitted on stage at Unite that the Unity Web Player's relatively small user base is a frustration for some publishers. "The only thing that is very different is that the GPU is very cheap, and CPU is going to be more expensive, because we have to do this conversion process, and the engine code actually runs in Actionscript."

FEATURE RICH

Unity-made games running in Flash will be able to harness features like physics, lightmapping occlusion culling, customer shaders, lightprobes, particle effects, navigation meshes and a wealth of other elements more typical the higher-end platforms supported by the engine.

"The good news about that is that the features that don't work for Flash are generally not features that are essential to a game's existence," confirms Meijer. "Things, for example, like advanced audio features such as reverb and echo filters; advanced effects that happen on top of the audio.

"The features that do kill your game if they aren't in there; those features work. The features that are the extra icing on the cake; you may need to remove that extra icing and find something else for the Flash version of your game. We expect that not to happen all that much, and it pales in comparison to targeting different devices with very different performance characteristics."

While no details of how and when the first version of Unity's Flash support will become available (and how pricing will work remains a mystery), one thing is clear. Both the Flash and Unity communities are itching to explore the potential the new authoring ability will give them, and curious to see if it means there will be more use of Unity for web design and the other use cases Flash has made its own since its launch back in 1996.

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Qualifications:
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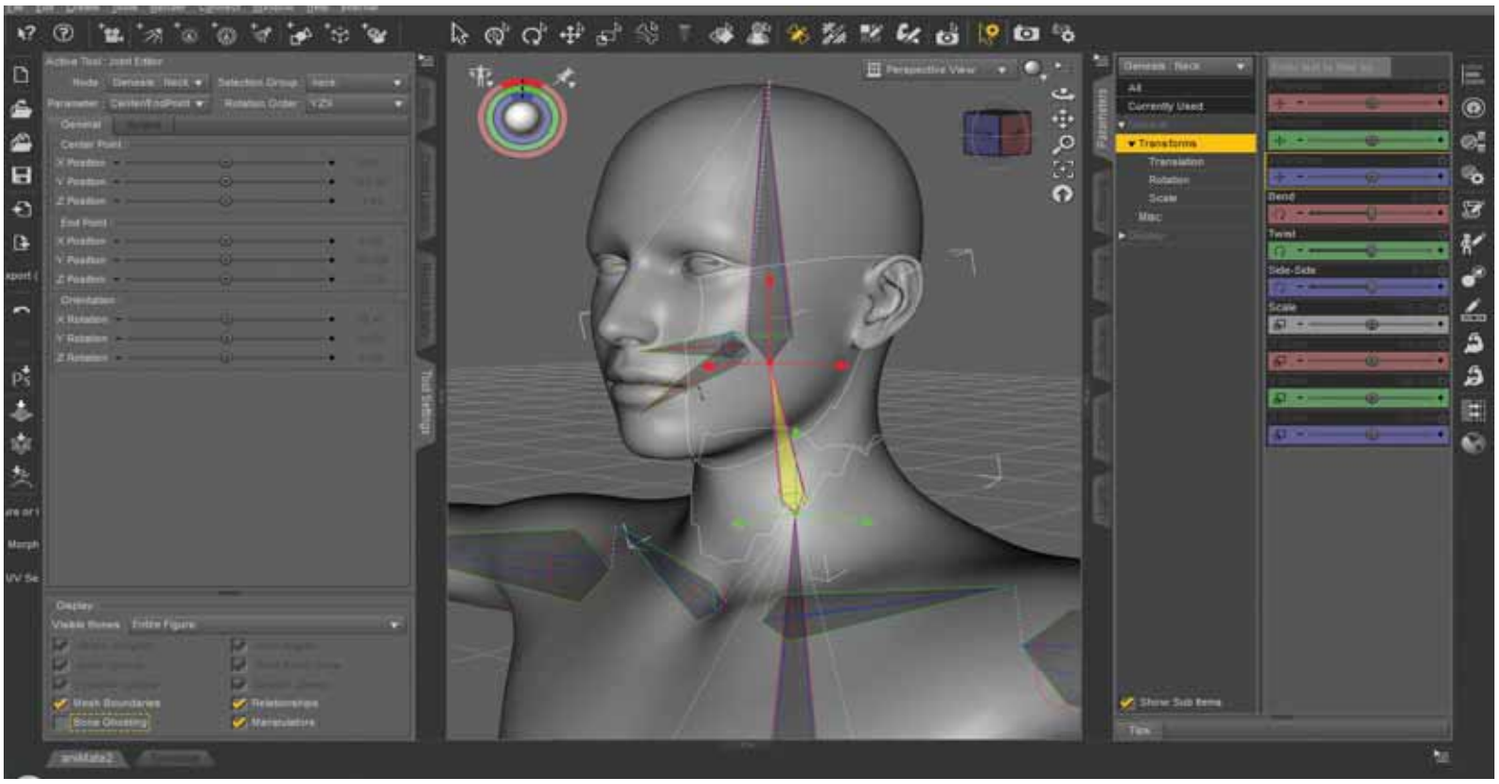
KEY RELEASE

Will Freeman looks at the new Daz Studio 4 Advanced and Pro suites

WHAT IS IT? An art and animation tool with a focus on character design
COMPANY: Daz 3D
PRICE: $229.95 (Advanced), $429.95 (Pro)
www.daz3d.com



Dan Farr, president and co-founder of Daz 3D, wanted to make Daz Studio 4 a better experience for first-time users and increase the tool's versatility

LIKE THE BASE version of Daz Studio 4 released earlier this year, the new Advanced and Pro editions are at their core art and animation tools with an emphasis on character creation.

Designed to let artists create and manage assets – including props and environments – Daz Studio 4 includes a wealth of features, including a lip-sync engine, a RenderMan compliant render engine, mesh deformers; surface material shaders and advanced rendering effects.

All of those are currently available in the base version of Daz Studio 4, which is temporarily available for free. What makes the Advanced and Pro versions worth paying for, say the tech's creators, are the extra features that push the tool well into the territory of high end design software.

MORE POWER TO YOU

"While the standard version of DAZ Studio is a solid solution for many digital artists and provides a large set of tools to help users be successful immediately, DAZ Studio 4 Advanced includes additional powerful render effects and controls that help users to really get the most out of their scenes," says Daz 3D president and co-founder Dan Farr.

"DAZ Studio 4 Pro includes all that the standard and Advanced versions do, along with a very comprehensive and complete set of figure setup and content creation tools. Pro is designed for those who wish to design, or heavily edit and customise their own 3D elements – figures, clothing, hair, props, scenes, etcetera – beyond what is available within our large online catalogue."

Whilst all of Daz 3D's tools are suitable for those across numerous creative industries, it's the very core of Daz Studio 4 Advanced and Pro that make the tool ideal for game developers.

A NEW BEGINNING

Having completely redesigned the geometry pipeline of Daz Studio 4, its creators have conceived the Genesis figure platform, which reside at the tool's heart.

> ***"This new platform provides a level of versatility and quality beyond anything our industry has ever seen before."***
>
> Dan Farr, Daz 3D

Genesis utilises single-skin, sub-d figures with weigh-map driven joint bending, making the job of exporting assets into various games engines via FBX or Collada simpler than ever.

Introducing a new weight-map system, and improved auto-rigging and auto-fit, Genesis offers users a virtually limitless set of additional figure shape variations that can all be built from a common base.

"These variations can range in both size and proportion while maintaining a common joint system," explains Farr. "Everything from massive, muscle-bound freaks or curvy super-heroines to adorable cartoon kids or frightful monsters can all be created and combined from this single figure base."

CHANGING TIMES

The Advanced and Pro editions of Daz Studio 4 are in part a response to a changing industry. Farr and his colleagues have identified a greater need for quality content that works in a production house pipeline – particularly in the blossoming indie space.

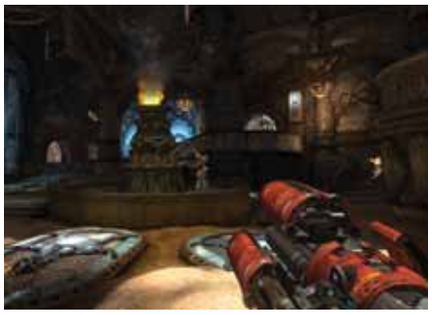
That considered Daz 3D, which also provides packages of pre-made assets to game developers, has attempted to better bridge the gap between its catalogue of assets and requirements of the various game engines through its changes to the Studio 4 toolset.

"We had two major goals that drove our development for this version," reveals Farr. "First, creating a new figure platform that was free to service the largest demands of our customers. Our customers want maximum flexibility without compromising on the overall quality and realism of their figures. The technology behind our new Genesis figure platform addresses just that. This new platform provides a level of versatility and quality beyond anything our industry has ever seen before.

"Second, more and more new users are wanting to take advantage of high-end tools like ours, but have a hard time making it through the barriers to entry. One of the biggest barriers, we've found, is the learning curve and complexity of the tools. As a result, we worked hard to lower these barriers and make DAZ Studio 4 a better experience for first-time users."

EPIC DIARIES

Mark Rein details Unreal Engine 3's move to support Flash



Running in the Flash Player as it is in all the screens above, Unreal tournament 3 looks every bit like a triple-A game

ON OCTOBER 4th in Los Angeles, Epic Games founder and technical director Tim Sweeney appeared onstage at the Adobe MAX 2011 to demonstrate Unreal Engine 3 running in Flash.

We've been working closely with Adobe on this technology for quite some time. A few months ago when we decided we would do a demo for this event, we weren't sure what we were going to show. The first content we decided to try in Flash was *Epic Citadel* and it ran amazingly well – better than we expected, considering how early on this was. But we began thinking a demo of content designed for mobile might set expectations too low, and we should aim higher.

FLASH STUFF

So what did we do? We chose as our demo a fully playable level from *Unreal Tournament 3*, and it turned out to look even better than the version we shipped on Xbox 360 and PS3, with improvements like global illumination, better shadows, and god rays. We're not just talking about triple-A console quality on the web, we're actually showing it onscreen, in a web browser, playing inside Flash.

I can't blame you if you couldn't imagine a Facebook game at the level of *Unreal Tournament 3* before today. But know now that UE3 with Flash support is the technology that will enable experiences like this, and we're just getting started. UE3 has earned recognition as the best game engine for PC, console and mobile, and now we're adding the Web via Adobe Flash support. With many of the world's best developers using UE3's professional-strength tools, we're sure to see amazing uses for this down the road. There's still some work to do before we can release this technology to developers, and we'll have more to talk about soon.

FROM INFINITY TO BEYOND

Onstage at Apple's Let's Talk iPhone event the very same day, Epic's president, Mike Capps, and Chair Entertainment creative director, Donald Mustard, revealed and demonstrated *Infinity Blade 2*, the full-blown sequel to the hugely successful iOS game *Infinity Blade*.

Infinity Blade 2 uses some cool new technical features that demonstrate what developers are able to do with Unreal Engine 3.

Let's start with two high-end graphics features that take advantage of the latest A5-equipped iOS devices (iPad 2 and the new iPhone 4S). Dynamic character shadows, which include self-shadowing, allow for greater realism in both combat and cinematic sequences, and provide greater range of visual contrast and color depth. Dynamic light shafts, also known as 'god rays' enhance the visual appeal of outdoor areas, as well as allow for great realism and cinematic quality together with visual effects such as lens flares.

iOS 5 introduces Apple's new iCloud service, and *Infinity Blade 2* will take advantage of iCloud save games, which will automatically sync your save files between multiple iOS 5 devices. This allows players to start the game on one iOS 5 device and then continue on another.

Infinity Blade 2 features 'massively social' gameplay challenge modes, driven through back-end server support, providing new challenges for players to complete in conjunction with each other. These challenges change frequently over time, allowing for greater variation of gameplay and offering unique rewards for participation.

Finally, Facebook integration is another great feature coming in *Infinity Blade 2*. This will allow players to post accomplishments, invite other players and friends to challenges, and utilise their Facebook network to enhance their gameplay experience.

Infinity Blade 2 is set to release on the App Store on December 1st, 2011. Be sure to visit www.infinityblade2.com for all the details.

UDK BREAKS ONE MILLION, AND ADDS MAC SUPPORT

Finally, I'm pleased to report that UDK has more than one million unique installs and now supports Mac OS X. This isn't a download count, nor does it count users who installed a new version of UDK over an old version, or reinstalls. This means there are more than one million different computers onto which the UDK has been installed.

We're very excited to see what developers do with these new features utilising our toolset. Between seeing UE3 in Flash, in iOS, and on Macs, we're looking forward to a very eventful 2012, to say the least.

UPCOMING EPIC ATTENDED EVENTS:

GDC Online
Austin, TX
October 10th to13th

Train2Game and Epic Game Jam
Bedfordshire, UK
November 4th to 6th

Please email: ***mrein@epicgames.com*** *for appointments.*

To discuss anything raised in this column or general licensing opportunities for Epic Games' *Unreal* engine, contact: **mrein@epicgames.com**

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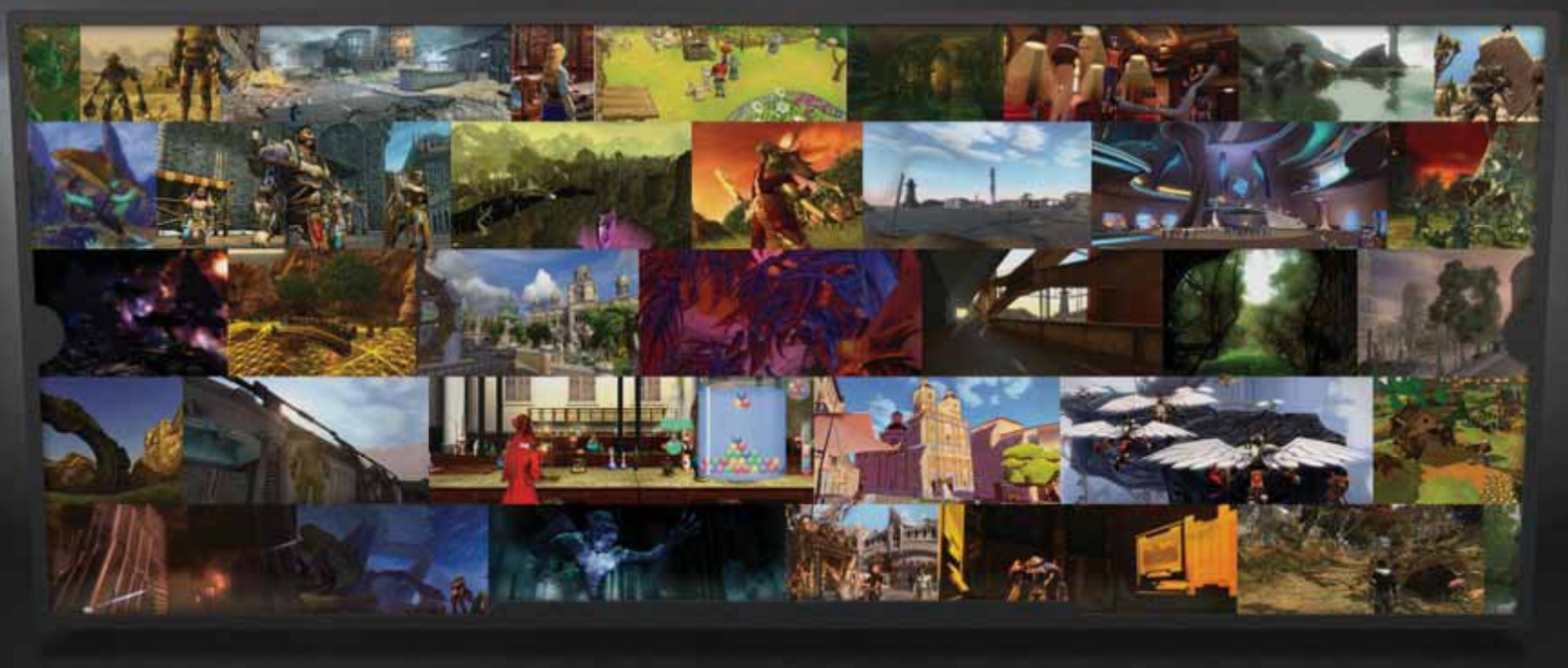
Canadian-born **Mark Rein** is vice president and co-founder of Epic Games based in Cary, NC. Epic's Unreal Engine 3 has won *Game Developer* magazine's Best Engine Front Line Award five times along with entry into the Hall of Fame. UE3 has won four consecutive Develop Industry Excellence Awards. Epic is the creator of the mega-hit *Unreal* series of games and the blockbuster *Gears of War* franchise. Follow @MarkRein on Twitter.



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UNITY FOCUS

A focus on Unity's expansion in the Asian markets in the wake of the opening of the company's Japanese office

WHEN UNITY opened an office in Japan this September, it marked a significant move on one of the global games industry's most entrenched markets.

But an official presence in Japan is just one part of Unity's on-going move to spread its message of democratising game development throughout Asia. In July Unity established a Korean base, and between January and August 2011 the company saw 258 per cent growth of its business in Asia compared to the entirety of 2010.

With establishing a Unity China office a distinct possibility, and growth showing no sign of stopping, it appears that the game engine is set for great things in the industrious Asian market. But what has assured the technology's popularity in the continent?

King of Totems, developed by Chinese studio TipCat Interactive, is one of an increasing number of games in Asia to use the Unity platform

A SENSE OF SCALE

"It's tough to generalise Asia because every region there is different," offers John Goodale, Unity's general manager for Asia. "We consider Japan, China and Korea separately. We consider Taiwan separately, as we do with South East Asia, and then India separately from that. But across those regions what we consider made us successful is what has made us successful worldwide, and that's scalability."

From a technological perspective, and from a business model viewpoint, Unity is certainly suited to the studios large and small that have proliferated so furiously in Asia over the past decade. But scalability is not the only reason teams in the region have warmed to the company's tech.

"In Asia one of the things that Unity has been able to do successfully, and given me the freedom to manage, is look region by region and country by country within Asia at the trends," comments Goodale. "We've become very good at identifying them, and then very specifically marketing and selling to those trends.

"What's accelerating our growth in China is the flight from PC client-based MMOs to browser games. There's this massive movement there in that category, so we've managed to work specifically to that trend, and that's driving a lot of growth. In China alone, compared to that 258 per cent growth this year, we've actually seen 280 per cent growth."

Part of that expansion comes from Chinese outfit TipCat Interactive, which as part of the move to browser in the country has opted to use Unity for *King of Totems*, a multiplayer adventure game for web, iOS, and Android.

Meanwhile, in Korea Goodale and his Unity co-workers have noticed a movement from the same PC client-based MMOs to handhelds. Many of the largest players in Korea – companies like internet giant NHN, which hosts the Hangame network – are moving their gaming focus to mobile, positioning Unity perfectly to offer solutions for those looking to adapt to that change.

"Finally, what's driving our growth in Japan is different again," adds Goodale. "While console is still present there, the popularity of mobile Social Networking Services is a key trend. You look at companies like GREE and DeNA, and they are companies we partner with. In February of this year we did an integration with the GREE mobile APIs, and very soon we will ship an integration with DeNA's APIs."

> ***"We've become very good at identifying trends, and very specifically marketing and selling to these."***
>
> John Goodale, Unity

In fact, so popular is Unity in Japan, that the company has managed to attract up to 200 developers a fortnight to seminars it hosts with GREE. This highlights a perhaps surprisingly sizeable indie scene in the country, that Goodale estimates to comprise of over 2,500 members.

PLENTY OF CHARACTER

The Asian market is so important to Unity, that subtle optimisations conceived with the continent in mind have been implemented in some Unity updates.

"I can't say too much," admits Goodale, adding: "But suffice to say some of our dot releases have contained elements that we have needed specifically for Asia, including the local IME support."

Allowing for and extending Unity's IME, or input method editing, was part of overcoming a significant challenge in capturing the hearts of the Asian development market.

"One of the things we have to deal with in most of Asia, that the rest of the world doesn't have to deal with too extensively, is the whole concept of an IME that helps deal with the huge numbers of characters some languages need," explains Goodale. "Chinese, for example, means dealing with 10,000 characters. That's been a technical challenge we've had, and we're improving our IME support throughout Asia through customised development."

Plenty of other localisation is needed too, such as moving to cater for country-specific payment services, but Unity is clearly getting something right.

While there's nothing planned at this stage, the company is open-minded about establishing an R&D department tailored for the Asian market if needed, and has seen development hotspots appear in the most unexpected of places.

Laos in Vietnam, for example, has provided a spike in interest in Unity, while the engine has proven popular with the Philippine development community for its uses in the educational sphere.

www.unity3d.com

HEARD ABOUT

John Broomhall talks to Nick Arundel about creating the score for Batman: Arkham City

Batman: Arkham City
Developer: Rocksteady Studios
Platforms: PC, PS3, Xbox 360
www.batmanarkhamcity.com

Nick Arundel, the mastermind behind Arkham City's large audio production.

NICK ARUNDEL is a busy man. Not only has he headed up a global team whose considerable talents have been brought to bear on an epic game audio production; he has also faced the challenge – and enjoyed the immense privilege – of writing much of the music score, ably assisted by Ron Fish handling additional composition.

Clocking in at over two hours *Batman: Arkham City's* music content is sizeable. However, Arundel is no fan of 'wall-to-wall' music, favouring the mood-evoking, story-telling power of sound design where he feels appropriate. As the project progresses, many a conversation takes place as to whether sound or music will lead specific areas of the game and furthermore, how subjective, non-literal sound design as well as music, will be used to sonically conjure up a feeling.

"We really 'front-end' the music," explains Arundel. "For the first three chapters, it's always there, but we slowly reduce it. For one thing, we don't want the player to tire of hearing music over and over again – and we want the sound design to be heard clearly. All the new game features are music-led initially, then sound design takes over.

"Having the music composition in-house really works for us because, given the level of interactivity we have musically in-game, it's so difficult to explain what's required to an external composer. We'd really need them in-house the whole time, I think. Much of the music is in layers and segments, though it's not a 'one-size-fits-all' approach. There are times when we just play a stereo track on a loop for, say, an intro or success or fail. Other music content has branching sections where, depending on what the player does, it will move to another 'set'. Then we have layering for other parts."

SWEET HARMONY

"All this feeds into the writing of the music. There are types of harmonic writing that work when you're going to branch that don't work when you're layering. If you've got six layers of music, it's really easy to get the first three harmonically the same. To get the middle one to match the fourth one but then know that you can never play the first two when the fourth one's playing is tough to describe to someone – it literally feeds into the types of chords you use.

"To be able to work with Ron Fish, we have a sheet of cues which he constantly refers to which define the harmonic movement of patterns of chords, ostenato figures, the theme, and types of variations of the theme – all four or eight bars long.

> ***"We don't want the player to tire of hearing music over and over again - and we want the sound design to be heard clearly."***
>
> Nick Arundel, Rocksteady

"For instance, the minor third is the most important interval in the music. We always modulate by minor thirds and it's the second interval in the melody. So harmonically, it's all by minor thirds and we only have two major chords in the whole game. Having these rules is how I make sure all the external composition and the internal stuff melds together."

SOMETHING IN THE AIR

In due time, the mammoth music score was recorded at the internationally acclaimed destination of many a major movie or video game orchestral recording; namely London's Air Studios. With Isobel Griffiths organising the orchestra, Nick Woolage engineering and Tim Davies orchestrating and conducting, the standard of soundtrack talent on hand was evidently second-to-none. "I must highlight Tim Davies – I've never seen anyone work so hard. With 120 minutes of music to get through in five days of triple sessions, he really turned it on," remarks Arundel. "It wouldn't have been so bad if it was all tutti stuff but for the interactive layered cues, we needed stems.

"The way it worked was full orchestra for the first two sessions on Monday – followed by choir in the evening. Tuesday was full orchestra during the day and brass in the evening and so on, until the last day, which was all full orchestra. It's a credit to Tim's orchestration that we didn't have a single problem with the score. The only issue was something I simply changed my mind on. It was just a solo part so I grabbed a piece of manuscript, made my change, got the soloist in, and we were done.

"It was so great to work with these people. As audio director, as well as composer, it's brilliant because there are so many things going on with the project coming into its final stage, and you're there listening to the music and pretty sure it's going to be fine. But until you actually hear the orchestra play it, you're not 110 per cent confident it's going to sound exactly as you imagined. But to these guys, it's their day job – they're relaxed and confident.

"All the in-game music was mixed in our own facilities at Rocksteady Studios HQ so I could deal with the different stems required. Meanwhile, we did a separate mix for the soundtrack release with Nick Woolage at Air Studios about a month ago."

Apparently, Arundel will now be visiting the Batcave for a well-earned rest.

John Broomhall is an independent audio director, consultant and content provider.
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www.johnbroomhall.co.uk

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DIRECTORY

The world's premier listing of games development studios, tools, outsourcing specialists, services and courses…

BRAND NEW!
In-depth recruitment section
p48

TOOLS SPOTLIGHT:
Fork Particle
p50

TRAINING SPOTIGHT:
Brunel University
p52

KEY CONTACTS

Amiqus	01925 252 588
BigWorld	+15122890145
Codeplay	0131 466 0503
Epic Games	+1 919 870 1516
Fork Particle	1(925) 417 1785
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RECRUITER HOT SEAT

We kick off a brand new regular studio recruitment slot by quizzing Mind Candy's **Richard Chipchase**

What does your company offer that other studios don't?
Think of everything that you wish a studio could offer. It's all pretty much here. It's a second home to all our staff. Somewhere they can hang out after work if they want to, chill out in the break out zones on giant glumps or play fuss-ball or swing-ball in the games area. We regularly get a chef in who cooks up a storm for the entire company, we have film night supported by sushi and pizza, free breakfast and food supplied in the bespoke kitchen area that is fully taken advantage of and of course, we have a tree house. You heard we had a tree house, right?

What are the other perks?
Our environment is visually stimulating, creatively inspiring and brimming full of passionate like minded staff. All our staff have shares in the company so they feel vested in Mind Candy's success. We believe in a genuine work/life balance and we don't crunch. Yes you read that correctly.

What's the best answer you've ever been given in an interview? And did you hire them?
I can remember several CV cover letters that really made an impact. We take cover letters really seriously. Generic, 'cut and paste', [insert company name here] doesn't work for us. We want to be able to see and sense someone's personality.

Here's excerpts from one that made an impact and yes, we hired him:

Wow!

This is right up my street!

BIO
Name: Richard Chipchase
Title: Head of Recruitment
www.mindcandy.com/recruitment

MIND POWER

How many people is Mind Candy planning to hire?
Our hiring numbers are ever changing. At the beginning of the year we were 45 strong, now we're closer to 100. I estimate we'll double in size again over the forthcoming year. At any one time we have between 15 and 25 live roles.

What fields are you recruiting from?
We aren't hung up on hiring staff from within the games industry. Whilst this is an area we are happy to see applications from, we're open to meeting people from most industry backgrounds as long as they fit the culture and possess technical genius.

It's been a big year for Mind Candy and Moshi Monsters. Does that make it easier or harder to recruit for the company?
The volume of applications is definitely up. Quality is also pretty good too. With more applications comes more interview activity so this has meant we've had to expand our recruitment team to maintain decent levels of activity. We haven't really advertised externally for that many roles this year and we've managed to keep a 92 per cent direct hire model throughout. It's never easy but the more right people you meet allows you to identify the ones who are more suited to other companies much quicker.

The short answer: yes and no.

GET THAT JOB

We ask recruiters how you can score that promotion or move to a new role

THIS MONTH: LEAD ARTIST

"Experience as a senior (or previous lead) is a must along with: knowledge of management, planning, work distribution, sign off/approval and a very good understanding of pipelines.

"You don't necessarily have to be in the games industry, but that would really help.

"Also, being prepared and having the skills to lead by example, regardless of which side of art they want to lead. Artists they will manage really do need to be confident that they know what they are talking about. Technical and paperwork abilities can be learnt, but art skills come from a little talent and a lot of hard work.

"They also need to be comfortable with communication, the job often means giving creative people feedback, how that feedback is presented can make all the difference."

Francesco Genovese, Recruitment Manager, Jagex

SIX-SECOND STUDIO SPOTLIGHT

LIGHTNING FISH

- *Founded 2008*
- Specialises in family oriented games involving motion tracking
- The studio's most successful game is *Get Fit with Mel B* selling 400,000 units worldwide
- The team is currently developing sport training game *MiCoach* with Adidas
- *MiCoach* includes 15 sports 'stars' and can be used with the mobile app, Pacer and miCoach website
- The team is looking at taking its expertise in AR and motion tracking onto mobile platforms

www.lightningfishgames.com

That on paper may make you say 'So what?', but I have a genuine understanding of digital technology, not just enough knowledge to mention buzz words hoping I'll get away with it.

While I'm not professing to be a developer by any means, I have taken it upon myself to learn basic HTML so when I look at a web page, I understand how it's constructed. Anyway, enough about that… my absolute ideal role is working in a social gaming company, I'd love to work with you and be a part of taking Mind Candy to the next level.

I'm passionate…

You get the gist here. Passion, energy, vision, entrepreneurialism, fun – these are just some of the attributes we look for and when we can feel it in an application, we get a sense of how they might perform in an interview. Might.

So what was the worst?

Our question: You've spent a week preparing for the interview, what's your vision for the role? Their answer: Which job did I apply for again?

What are your tips for 'winning' an interview?

Winning an interview means different things to different recruiters.

For me, and Mind Candy, winning an interview is much about a candidate being entirely themself. Comfortable in their own skin, able to articulate their vision for the role and how they sit within the company. At the stage where they meet me, it's all about cultural fit. Could I spend three hours on a flight with this person? Do they seem like the type of individual that will feel at home in our studio, crank out amazing results and compliment our culture? I'm incredibly passionate about this part of the process as it's a huge responsibility to be part of retaining our cultural identity. We see dozens of CVs with skills we could definitely take advantage of but if this means diluting who we are and what we stand for, we won't even consider it. Two top tips – don't wear a suit and if you're presenting, don't use clip art!

Why should developers still be interested in working for a big studio when the ability to 'go indie' and self-publish has never been easier?

Anyone asking that should come over to us for a visit – I'll let you make your own mind up once here. During the last two months, three hires have come from clients who were visiting and the meetings were entirely non-recruitment related. Speaks volumes.

> ***"I'm incredibly passionate about this part of the process as it's a huge responsibility to be part of retaining our cultural identity."***

What area of the industry needs more investment?

The Government needs to invest more in the UK games industry, provide better tax relief for businesses in the sector, and create the amazing 'clusters' that exist elsewhere in the world. In these areas the games industry then feeds back into and supports education, which then feeds into their recruitment.

NEW STUDIO ALERT!

SECRET CRUSH<3

Originally conceived as a 'volunteer project', Secret Crush has been founded by former Kuju creative director and *Edge* writer Ste Curran. He left his role at Brighton-based Zoe Mode to focus entirely on Secret Crush, which is currently looking for coders and artists.

Said Curran on his blog: "This project isn't a charity and I'd love for it to make money some day. I am not counting on it.

"But in order for it to get anywhere at all it needs some immediate love, leadership and dedicated attention so that's one of the things I'm going to be focused on for the rest of this year."

More info at **www.supersecretcrush.com**

MOVERS AND SHAKERS

Promotions and a new face at Develop, plus extra hands added to Fishlabs, Obsidian and Mind Candy

DEVELOP ■ WILL FREEMAN has been promoted to editor.

He will drive the publication's editorial direction and have day-to-day responsibility for the print magazine, reporting to editor-in-chief Michael French

Freeman (*pictured above*) joined *Develop* in December 2008 as staff writer and became deputy editor in March 2010.

The respected journalist also writes about games every week for UK broadsheet *The Observer*.

He previously worked for games retail monthly *In Stock*, has also written for *Pro-G* and once worked in games PR.

"Will has become a key part of the *Develop* team since he joined us, and is respected by the development community - his promotion is well-deserved," said **MICHAEL FRENCH**, editor-in-chief of Develop and its sister brand MCV.

"As editor he will further strengthen the *Develop* brand, which is already the leading outlet, in both its print and online guises, solely focused across on the games development community."

Meanwhile, Develop has also hired **CRAIG CHAPPLE**, 24, as new staff writer. He joins *Develop* just months after being awarded a 1st Hons for Journalism.

Will can be reached via Will.Freeman@intentmedia.co.uk

Craig can be reached via Craig.Chapple@intentmedia.co.uk

FISHLABS ■ The Hamburg-based mobile studio has hired experienced game designers **MARK INTELMANN** and **EVA JOBSE**.

Intelmann, who previously worked at Bigpoint, will take the position of online game designer, focusing on free-to-play monetisation and multiplayer/online functionality.

Jobse, who has worked at Virtual Fairground and Gamundo, will take on the role of senior game system designer. She will support the studio in the creation of new sci-fi MMOs and the design of new in-game trading systems.

Fishlabs **CEO MICHAEL SCHADE** said: "Thanks to the numerous new additions to our team, we are now well prepared to expand our successful *Galaxy on Fire* series and win over a whole new target group."

OBSIDIAN ■ Troika co-founder **TIM CAIN** has been appointed as senior programmer at US studio Obsidian.

The move comes after Cain left his role as programming and design director at Carbine Studios in July after five years at the developer.

Cain previously worked at Interplay from 1991 to 1998 and developed the original *Fallout* game, before leaving his role as lead programmer/producer in 1998 to found Troika Games.

Obsidian has worked on games such as *Fallout: New Vegas*, *Dungeon Siege III*, *Alpha Protocol* and *Neverwinter Nights 2*. The studio is currently working on *The Wheel of Time* based on the Robert Jordan fantasy novel.

MIND CANDY ■ The Moshi Monsters firm has hired **BRAD SCHULTZ** as head of Moshi TV at the studio's new LA office.

Schultz will be responsible for overseeing and growing the company's new online TV division. The new platform will feature animated Moshi shorts and user-generated content.

Schultz said: "I'm thrilled to be on board with such an exciting project. YouTube revolutionised the online video space, now it's time to bring that innovation to the kids' space. Our vision is to change the face of children's content production."

CEO **MICHAEL ACTON SMITH**, CEO added: "We're delighted to have Brad heading up this immensely exciting area of the business.

TOOLS SPOTLIGHT

This month: **Fork Particle**

FORK PARTICLE is a company that specialises in providing particle effects tools to developers.

Founded in 2005 by Noor Khawaja, the California-based firm's technology has since been used in various regions around the world including North America, Asia, Europe and Australiain on games such as *Civilization 5*, *LEGO Universe*, *Gun Slinger, Comic Jumper* and *Empire Earth III*.

Khawaja says Fork's mission "is to set the standard for artist friendly modelling tools for real time particle effects and deliver high performance cutting edge particle systems technology."

The company's middleware tools simulate effects such as smoke, fire, rain, snow, explosions, and other visual effects. The toolkit provides four components, a particle effects authoring tool, a real-time simulation engine, in-game live updates and a data export automation module. Khawaja says this has been specifically designed for artists so that they can separate the design phase from integration into the game.

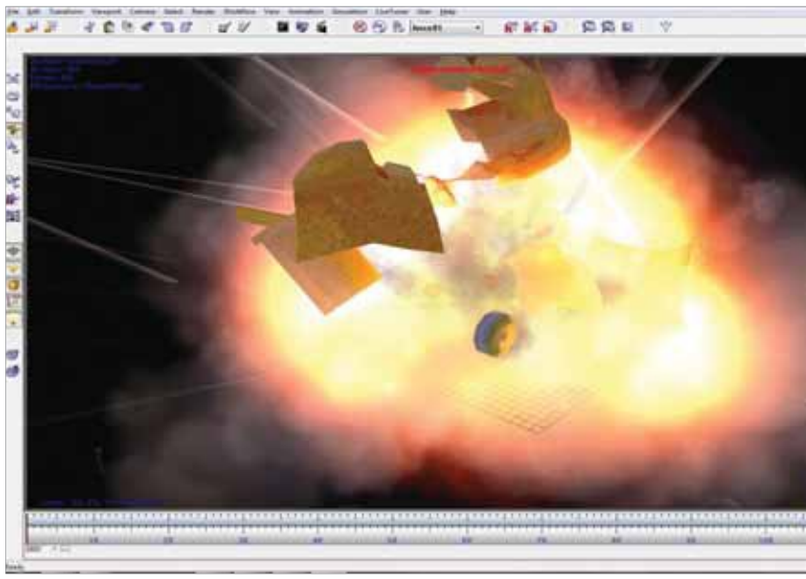
The Particle Studio includes features such as super emitters, sword trails, hardware shaders and path following. The Runtime real time simulator engine allows for easy integration with in-house and commercial engines and optimised for PC, PS3 and Xbox 360.

Khawaja says the studio is careful about how it chooses to proceed in an ever-changing industry to make sure that it does not compromise the quality of their middleware.

"Fork Particle is always looking ahead and takes challenges head-on," he says. "We have held on to our core principles; we continue to enhance our tools and technology so our users are able to get the highest quality particle effects in their games.

> ***"We continue to enhance our tools and technology so users are able to get the highest quality effects."***
> Noor Khawaja, Fork Particle

"Our development pipeline to support a new target platform is mature. We are working on four new platforms and maintaining integrations with Havok Vision, Sony Phyre, Gamebryo LightSpeed, Havok Physics, NVidia PhysX, and Perforce."



He adds that the middleware provider has had its on eye on the casual game developer market for quite some time and "feels that it is a good time to begin our move forward".

He says plans are afoot to release Fork Particle Casual this year, which will target the sector through both online and mobile platforms.

Despite the emergence of casual gaming, he says that new powerful hardware "works in our favour as it can

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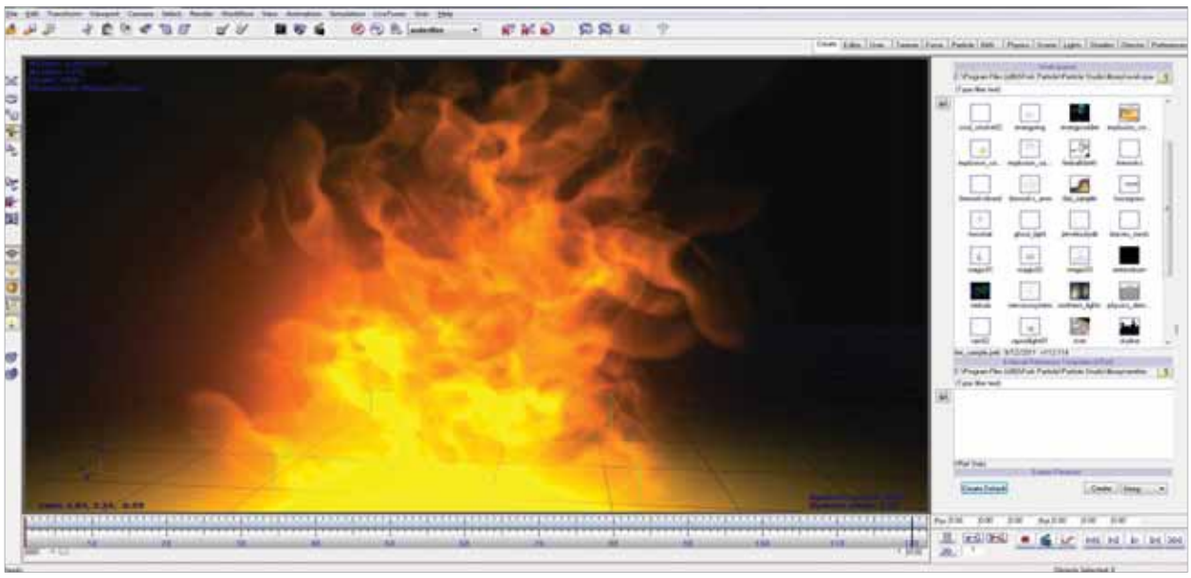

support new features" and plans to enhance Fork's particle effects graphics and simulation capabilities to further improve the quality of effects. He adds that the tools provider will be introducing their new 'Particle Effects Director' interface this year, which will enable users to set up movie like particle effects sequences and custom events.

Khawaja says that in future the middleware firm plans to add new features to the toolkit so that it provides a solution to social network games developers. He also says the company plans to provide integrations of the Fork Particle technology with internet browers, whilst its 'annual product enhancement technology roadmap' includes support for particle effects on game UI and further integration with the Autodesk FBX to drive advanced features.

Fork Particle's powerful middleware can be purchased in 'Ultimate' or 'Complete' packages, with the 'Casual' version coming later this year

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TRAINING SPOTLIGHT

This month: **Brunel University**

BRUNEL UNIVERSITY offers undergraduate and postgraduate programmes in games that can be combined with other subjects from the school of arts such as sonic arts or creative writing.

The courses aim to teach students theory, design and application. Students study practical game design and reflect on this practice through concepts and methodologies used in the academic study of games.

Course convener Douglas Brown says that an "emphasis is placed on applying theory in a design context to develop a range of creative, analytical and design skills relevant to the contemporary games marketplace".

He adds: "An insider's view of the industry is complemented by all the benefits of a traditional arts degree, including the understanding of a range of conceptual models to aid in the process of critical, independent thought and problem solving.

"Brunel's game students also have the opportunity to pitch their design ideas to industry experts."

Speakers on the courses have included "regular appearances" from industry professionals such as Media Molecule's Mark Healey and Brunel lecturer and founder of Games Workshop Steve Jackson. Ian Livingstone and Peter Molyneux have also spoken at the university, who have both received the development legend honour at the annual Develop Awards.

Brown claims that around 60 per cent of graduates from the courses get into the industry, joining studios such as Ubisoft, Rebellion, and Creative Assembly, credited with working on games including *Brink*, *Fable 3* and *LittleBigPlanet 2*.

> ***"An insider's view of the industry is complemented by all the benefits of a traditional arts degree."***
>
> Douglas Brown, Brunel

As for how the courses train students up for an ever-changing industry, Brown says the ethos of the Brunel games programme is to educate students to become confident, creative designers with a broad understanding of games as a media type with their own unique features.

"Core to all our programmes is the development and practice of the skill in creating rules to make a game that people will want to play," he says. "Design, analytical and communication skills never date or expire, and equip our graduates to meet the demands of the games industry."

Looking to what the university could provide in the future for its games students, Brown says that Brunel hopes to run a broader choice of joint degrees

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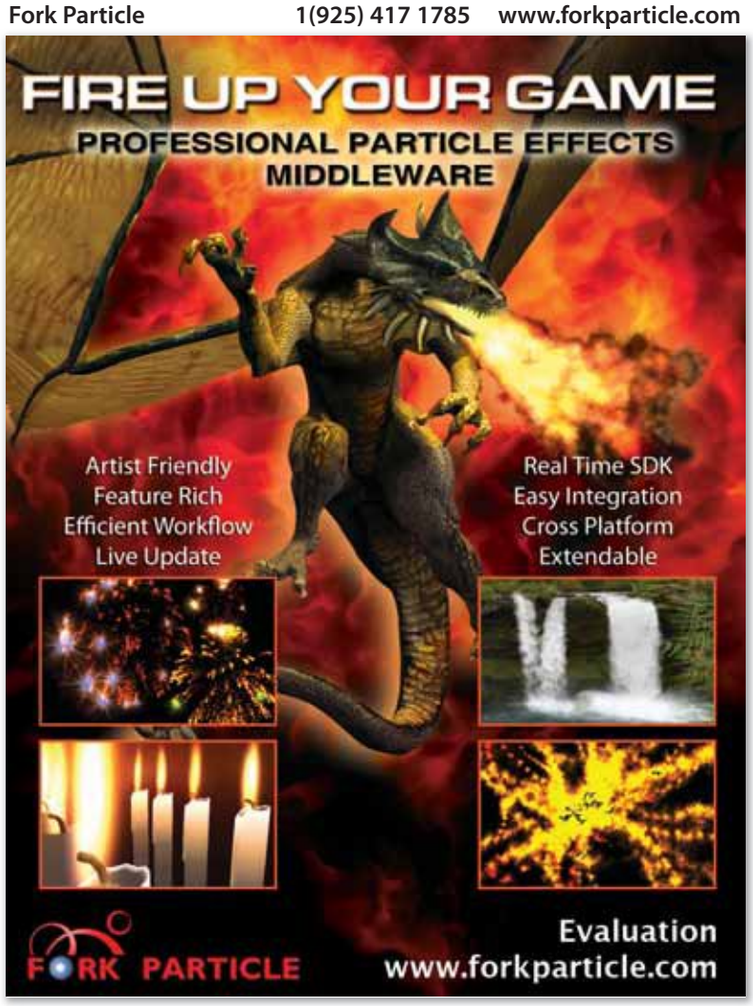

Brunel University
Kingston Lane,
Uxbridge,
Middlesex, UB8 3PH

P: 01895 274 000
E: admissions@brunel.ac.uk
W: www.brunel.ac.uk

Douglas Brown is the course convener at Brunel University and is keen to further improve the quality of experience offered to students

with more technical options such as computer science courses to further improve its offerings.

"Offering BSc degrees alongside our BA degrees will make a good addition to our portfolio," says Brown. "We are also looking into staging a single honours games course"

He adds that long term the university isn't looking to recruit in ever-increasing numbers, but rather to maintain and enhance the quality of the experience.

"Demonstrating the value of the academic study of games to the industry through our diverse, diligent and innovative graduates is part of our wider goal of championing the academic and artistic value of games as a medium."

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SERVICES SPOTLIGHT

This month: **OmniMedia Music**

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California,
90404

P: (310) 987 1763
E: adam@omnimediamusic.com
W: www.omnimediamusic.com

OMNIMEDIA MUSIC is a boutique talent agency representing composers in interactive entertainment.

It provides studios with suitable members of its agency to take on the tasks required, and then works closely with developers to provide creative guidance, live recording co-ordination and other services to meet the needs of its clients.

OmniMedia recently became the exclusive agent for the William Morris Endeavor composer roster in the video game industry, which provides composers for any type of studio, whether a small mobile game or a triple-A developer.

Executive director Adam Levenson says: "I am proud to say that OmniMedia music has achieved every goal established at the start-up stage of the company. I am especially thrilled to be in partnership with William Morris Endeavor, representing an unbelievable line-up of composers that I admire and respect."

He says that OmniMedia "has recently placed composers on major console games covered by non-disclosure agreements, and there's several more exciting deals in the making."

Levenson, who has more than 18 years of experience in video game audio production having contributed to dozens of games as an audio director, music producer and music director, says the agency is well placed for changes in the industry.

"The introduction of popular new platforms in the casual market combined with challenging economic conditions has significantly impacted the traditional console and PC game business," he says. "I draw confidence from knowing interactive entertainment is here to stay, and that original music is a key element in presenting an immersive game experience."

> ***"I am proud to say we have achieved every goal established at the start up stage of the company."***
>
> Adam Levenson, Omni

In future he says Omni's goal is "to deliver superb options to game makers by presenting great talent, creative and workable budget options, and fair contract negotiations".

OmniMedia Music executive director Adam Levenson has 18 years experience in video game audio production

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THE INDUSTRY IN 140 CHARACTERS

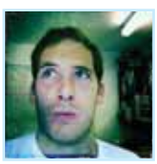
A month in tweets by the industry elite

@charltonbrooker

If any film starred a character as rubbish & po-faced as this *Deus Ex* prick, audiences would hurl shoes at it.

(Charlie Brooker, celebrity journalist)

Monday, September 26th



@SpiltMilkStudio

I do love how journos tweak what you say just enough to be headline-worthy :) genuinely love it. I doff my cap :D

(Andrew Smith, Spilt Milk Studio)

Monday, October 10th

@ georgeb3dr

How long till Blizzard/Activision sue @notch over *MineCRAFT*? Good thing Minecraft isn't sci-fi or fantasy. Whew.

(George Broussard, 3D Realms)

Thursday, September 29th)

@wonderlandblog

"This model of PS3 does not support the PS2 format". That's it, Sony. You and me are SO OVER.

(Alice Taylor, Makielabs)

Tuesday, October 11th

@BillGates

For those of us lucky enough to get to work with Steve, it's been an insanely great honor. I will miss Steve immensely.

(Bill Gates, Microsoft)

Thursday, October 6th

@numberless

RIM's Slough branch is responsible for international BBM service outages. Did they hire David Brent or something?

(Scott Jon Siegel, PopCap)

Wednesday, October 12th

@michaelpachter

Team Bondi bankruptcy embarrassing, especially with overworked employees left unpaid. Crunch complaints fair if workers unpaid. I apologise

(Michael Pachter, analyst)

Saturday, October 8th

@danthat

Wish game designers would come up with a better, less intrusive alternative to that useless Grenade Indicator arrow. It is no help.

(Dan Marshall, Size Five)

Wednesady, October 12th

@notch

I appreciate the offers to help texture it, but it's my dragon! Go make your own dragons! :P *hugs dragon*

(Markus Persson, Mojang Specifications)

Saturday, October 8th

@mikeBithell

I've only ruddy gone and made 8 levels. It's an odd feeling, learning to use tools you made. No third party to blame when it breaks ;)

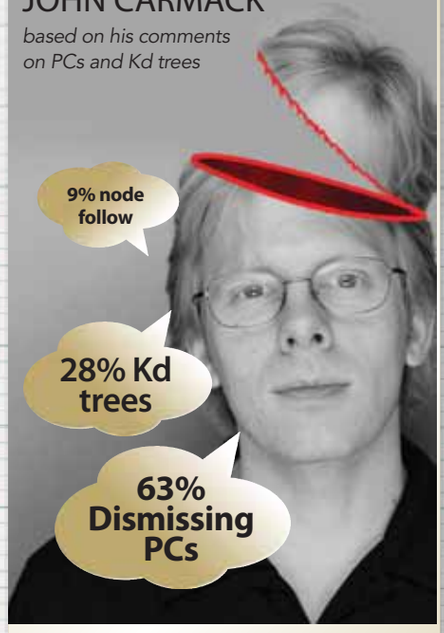
(Mike Bithell, Bossa Studios)

Wednesday, October 12th

AN OPEN MIND

JOHN CARMACK

based on his comments on PCs and Kd trees



Telling Kotaku readers why the platform that once defined id Software is losing its potency: "We do not see the PC as the leading platform for games. That statement will enrage some people, but it is hard to characterise it otherwise; both console versions [of *Rage*] will have larger audiences than the PC version. […] Nowadays most of the quality of a game comes from the development effort put into it, not the technology it runs on."

Telling Twitter some thing about… well… Kd trees? We're not really sure: "Implemented Wald/Havran O(N log N) Kd tree builder, but it is often slower than my previous O(N log^2 N) builder that is multithreaded.

Asking Twitter about following nodes. At least, we think it's a question. It's definitely about nodes: "Potential locality improvement for Kd tree tracing by always making the larger SAH, instead of the more negative, node follow?"

IT FIGURES: THE iOS WEALTH GAP

According to a survey conducted by indie studio Streaming Colour, **four fifths** of iOS games developers share just **three per cent** of total revenues generated across the business. The same report revealed that that just **one per cent** of mobile games developers take more than **a third** of total revenue the games business makes, and that **half** of mobile games developers make less than **$3,000** in lifetime sales. Only **Four per cent** have made more than **$1 million**. Deeper research found that **25 per cent** of mobile games developers have made less than **$200**. Another **25 per cent** have made more than **$30,000**. From total mobile games revenues **one per cent** of respondents claimed **36 per cent** of total revenue, **19 per cent** of respondents claimed **61 per cent** of total revenue and **80 per cent** of respondents claimed **four per cent** of total revenue Streaming Colour, which created *LandFormer* (*pictured*) drew the conclusions from an online survey of **252** developers.

THE EGO TRIP

We ask some of the finest game developers in the world questions about the toughest subject of all – their own work

THIS MONTH: Charles Cecil
MOST FAMOUS FOR:
Broken Sword series
ANSWERING QUESTIONS ON:
Broken Sword: Shadow of the Templars

What month and year did Shadow of the Templars first see release?
I remember it was 1996, but the month? I know it was the end of the year. In fact, I do know. It was late September, which was perfect for the game. **CORRECT**

Including the original and the Director's Cut versions of The Shadow of the Templars, can you name every platform on which the game saw release?
I'll need to write these down. Well, there's PC, PlayStation, GameBoy Advance, and there was also a Mac version. iPhone and iPad were different versions. Then there was a Palm version and Pocket PC, and two more. Oh dear; what were they? It was the Director's Cut. I feel rather stupid here. **INCORRECT** (*Charles failed to mention DS and Wii*)

The game's hero, George Stobbart, visits numerous countries throughout his journey in Shadow of the Templars. Can you name five of them?
Oh that's easy. Obviously he starts in France. He then goes to Ireland, and then to Syria. He then goes to Spain, and then to Scotland. **CORRECT**

Can you name the young Irishman from Lochmarne who is supposed to deliver Peagram's gem to Jacques Marquet in the game?
Yes, he's called Fitzgerald. And his first name is Patrick. No it isn't. His first name isn't Patrick. It's Sean. Sean Fitzgerald **CORRECT**

How does the game's heroine Nicole Collard help George in the Museum?
She arrives wearing something of a Catwoman outfit. **CORRECT**

The composer of Shadow of the Templars is most famous for scoring a popular TV series. What is the composer's name, and what was the TV series called?
He did Inspector Morse, and his name was Barrington Pheloung. **CORRECT**

LEADERBOARD

1. Charles Cecil (5/6)
2. Martin Hollis (4/6)

Charles has just taken the lead from Martin, meaning the Revolution Software man is the current champion of Ego Trip. Check back next month to see if he can hold onto the top spot.

develop FORWARD PLANNER

DECEMBER 2011/JANUARY 2012

30 Under 30
Develop shines its talent spotlight on the young achievers shaping the industry's future

Mocap Focus
A detailed look at motion capture, and new trends and technology in the sector

Regional Focus: France
Movers and shakers in this diverse games development region

FEBRUARY 2012

Recruitment Special
Our annual analysis of the jobs market includes: Advice for CVs, portfolios and interviews; per-discipline guidance on getting a promotion; the education sector; our salary survey; and much, much more

Salary Survey
Dissecting the data to see how industry salaries are changing

Regional Focus: Cambridge
An overview of current developments and new stories from the historic University town

MARCH 2012

Game Engines
A look at the evolution of the game engine, with analysis of the key trends and technologies from the sector

Regional Focus: Germany
A focus on making games in Europe's largest economy

Event:
GDC – March 5th to March 9th

APRIL 2012

QA and Localisation
We take an in-depth look at this essential element of the games development process

Regional Focus: Nordic countries
An examination of this powerful sector, and the influence it is having on the industry

MAY 2012

With Develop 100 insertion

Audio Special
A detailed summary of music and audio for the games sector, from in-house teams through to outsourcers

Event:
Develop Quiz – Date TBC

JUNE 2012

Middleware focus
Trends and new releases in third party tech, tools and engines

Event
E3 2012 – June 5th to June 7th

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THE FAQ PAGE: CLIFF BLESZINSKI

Develop grills respected figures from the global games industry

Cliffy B wants developers to show their personalities more and change the perception of the industry

Who are you and what do you do?
My name's Cliff Bleszinski and I get out of bed in the morning and I put on my pants one leg at a time and I take all the efforts I can to destroy the *Gears of War* franchise. Well, that's what they'd make you think.

What are you working on right now?
Right now I've been in press mode of course. I've just been right at that sweet spot where the reviews are heading in, the game's coming out and getting into gamers' hands and I get to actually play it and enjoy it. I can tell you that it's the first time since *Unreal Tournament* in 2004 that I really want to go home and just play the game we worked on.

What was the first video game or product that you worked on in the games industry professionally?
I did a game called *Palace of Deceit* for Windows where you were a young dragon who was being persecuted by an evil wizard and you had to escape from a castle. I sold that out of my mom's house when I was about 16 or 17.

What was the first video game that you ever played?
It was *Space Invaders*

What was the most recent video game you played and did you enjoy it?
Deux Ex: Human Revolution. I enjoyed it. I'm a big fan of the first one, and I think the first sequel had its merits, though I think it's a little bit misunderstood. I think the new one goes in a very cool direction. I'm a huge fan of the cyberpunk genre.

> ***"I'm interested in seeing gaming experiences that transcend all screens. He who solves that problem is going to be the big, successful person of the future."***

What's your favourite game of all time and for what reason?
It's still *Tetris*. You can still fire it up and it's still fun. Well, it's not fun on iPhone. After the first three levels when you have to perform good moves under pressure it just doesn't work. I still need buttons.

How many hours a week do you actually get to play video games?
I'd wager between a busy week four-to-six, on a less busy week ten to 15 tops.

What area of the games industry do you feel needs more investment?
I'm interested in seeing gaming experiences that transcend all screens. I want a game where right now I can sit here and play it on my iPad and go back to my 60-inch plasma TV screen and play it there. Or I can play it on my phone in the elevator and continue to contribute to the greater good of whatever my game is going to be. He who solves that problem is going to be the big, successful person of the future.

What do you enjoy most about the video games industry?
I enjoy the feedback. I enjoy the fans. It's a funny thing; if you do great they will love you, if you slight them at all they will violently oppose it.

What disappoints you about the video games industry today?
It's developer visibility. I want to meet developers. I want to talk to them. I want to pick their brains. Us developers; we were the ones in the back of the class who weren't going to prom because we were sitting at home on our computers. We need to get out of the basement and it's the perception of video gaming being in the basement that drives me crazy.

Of all the games you've worked on, which has been your favourite?
The easy answer is *Gears of War 3* because of course it's our baby. But I think it goes back to *Jazz Jackrabbit*.

What game that you were not involved in would you have like to have worked on?
One of the early *Zelda* games, because when I was a child in New England *Zelda*, for me, captured the magic of the summer when I was 13 years old exploring the woods and golf courses.

What interests, hobbies and collections do you have unrelated to video games?
I collect antique keys. I was going to get a third tattoo. The two tattoos I have were just flash shit that I got when I thought I was cool. Back when everybody was getting tramp stamps. But my third tattoo is actually going to be an antique key. It goes back to a childhood chasing keys in video games and there was always that antique looking skeleton key that was in the game; that completely overdesigned one.

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